

CHEEK, II, JIMMY ALEXANDER, Ph.D. The Effect of Race and Racial Perception on Adjudicators' Ratings of Choral Performances Attributed to Racially Homogeneous and Racially Heterogeneous Groups. (2007) Directed by Dr. Constance L. McKoy. 127 pp.

The purpose of this study was to investigate the effect of two independent variables, race and racial perception, on ratings of choral performances attributed to racially homogeneous and heterogeneous groups. A secondary research objective examined relationships between adjudicators' choral performance ratings and their self-reported ethnic social encounter preferences.

Subjects were 26 Black and White choral music educators from five counties in North Carolina. Subjects from the two racial categories were assigned randomly to experimental Treatment Group A ($n = 10$), B ($n = 8$) or Control Group C ($n = 8$). Subjects in Groups A, B, and C evaluated the same listening stimulus while presented respectively with a photograph designed to be perceived as a choral group comprised of homogeneous Black, homogeneous White or heterogeneous Black and White members. Subjects also completed a posttreatment measure of preferences for Black and White social encounters.

A two-way ANOVA was used to analyze ratings of choral performances; the Pearson Product-Moment correlation procedure was used to analyze choral performance rating data and data from the social encounter measure. An alpha level of .05 was established for all statistical and inferential analyses.

Results of the study revealed no significant main effect of race, and no significant interaction effect of race and treatment on the dependent variable;

however, a significant main effect was found for treatment. Correlation analyses revealed weak to strong negative relationships between adjudicators' racial-encounter preference mean scores and choral performance evaluation ratings for subjects in Treatment Groups A and B. Moderate, positive relationships were found between these variables for the control group.

The following conclusions were drawn from the study: (a) adjudicators' racial perceptions may influence their evaluations of choral performances, and (b) although adjudicators' ratings of music performance and their ethnic social encounter preferences do not appear to be strongly associated, future studies should examine these relationships further while controlling for factors known to influence responses to measures designed to examine racial attitudes. Continued research concerning the effect of non-musical factors on choral performance evaluation may result in the enhancement of the educational value of choral performance experiences for students and teachers.

THE EFFECT OF RACE AND RACIAL PERCEPTION ON ADJUDICATORS'
RATINGS OF CHORAL PERFORMANCES ATTRIBUTED
TO RACIALLY HOMOGENEOUS AND RACIALLY
HETEROGENEOUS GROUPS

by

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A Dissertation Submitted to
the Faculty of The Graduate School at
The University of North Carolina at Greensboro
In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Greensboro
2007

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APPROVAL PAGE

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ACKNOWLEDGEMENTS

Sincere appreciation is extended to the members of my dissertation committee: Dr. Constance McKoy, Advisor and Co-Chair; Dr. Randy Kohlenberg, Co-Chair; Dr. William Carroll and Dr. Brent Nolker, for their understanding, patience and invaluable contributions to the completion of this scholarly endeavor. Appreciation is expressed to Dr. Patricia Sink who was an initial source of inspiration for my current academic pursuit. Deepest appreciation is extended to Dr. Constance McKoy for her unyielding guidance, genuine concern, unwavering commitment and intellectual insight into the role of a researcher.

Appreciation is extended to the choral music educators that participated in this study. Acknowledgement is expressed to Mrs. Jane Woody for being the choral music educator who provided influential and rewarding high school choral music experiences during my high school years. Sincere thanks are expressed to Dr. Clifford Watkins and Mrs. Gwendelyn Bell for their continued mentorship and support of my academic advancement.

Gratitude is extended to Dr. Kenneth Ruff for his unfailing encouragement, motivation and continuous support. Sincere appreciation is expressed to Loleta Chavis for her devoted friendship and personal commitment to my educational goals. My deepest gratitude is extended to my parents and family for their love, support, concern and understanding. Finally, sincere thanks are expressed to my church family, friends and colleagues at Dudley High School for their support.

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CHAPTER I

INTRODUCTION

Overview and Rationale for the Study

Music educators have acknowledged that evaluation of choral music performance is an aspect of choral music education that provides a necessary assessment of effective music instruction and performance achievement (Boyle, 1989; Lehman, 1989). Competitive and non-competitive choral festivals are popular among music educators because these events provide an additional measure for evaluating choral groups' performances. The National Federation of State High School Associations (NFHS, 2002) suggested that such adjudicated events are vital to processes related to choral music education and provide a concise evaluation of a performing group's demonstrated strengths and weaknesses. The NFHS summarized the benefits of music adjudication based upon the quality of music adjudication provided nationally to performing groups and viewed the experience as an important and enriching educational opportunity.

The purpose of . . . adjudication is not simply to assign a division rating or pick a winner . . . These critiques, which can address both concert and sight-reading skills, deal almost exclusively with those components of musical literacy that lie at the core of the curriculum for school music such,

the actual adjudication is a true extension of the classroom and a valuable component of the musiceducation process (NFHS, 2002, The Value of Music Adjudication section, para. 1).

This premise supports the need to obtain music performance evaluations that are based upon objective measures. Concern for objectivity in music performance adjudication has caused researchers to examine factors that may influence judges during the adjudication process. The proceeding section presents an overview of the evolution and organizational structure of adjudicated choral performance events, and factors considered to impede or enhance evaluation decisions at adjudicated choral events, as these topics are integral to the current study.

The Development and Process of Choral Adjudication in Music Education

During the 1920s, the first adjudicated music competitions were held for instrumental groups from public schools and civic organizations. Adjudicated choral music events were modeled after school band competitions held for several groups invited to participate or between rival schools. During the evolution of these competitions, choral music educators became concerned about procedural inconsistencies regarding how adjudicators made evaluative decisions and rated choral group performances. In some instances, choral event organizers allowed teams of adjudicators to make evaluation decisions independent of one another, while others permitted adjudicators to confer with

one another to determine the level of a group's performance achievement (Rohrer, 2002).

The National Conference of Music Supervisors organized a committee in 1922 to promote consistency in evaluations, develop repertoire standards, and to address concerns identified with instrumental music competitions. Changes established by the committee influenced early competitive music events nationally (Neil, 1944, as cited in Rohrer, 2002). This early framework provided the structure for today's competitive and non-competitive choral festivals.

The original structure of the choral competitions included a ranking system used to categorize participating groups according to adjudicators' perception of a group's performance. Music educators served as adjudicators for these competitive events. Choral groups awarded first, second, or third place received trophies, scholarships, or cash prizes reflecting the achieved performance ranking. Other participating groups received no recognition. In an effort to reduce the inter-group competitive nature of the early choral music festivals, the National Conference of Music Supervisors replaced the former ranking system with a rating system that allowed groups to receive adjudicated ratings and comments or non-rated comments. Instead of minimizing competition, however, the new rating system increased competitive attitudes among public school choral groups and choral music educators as they sought to obtain the highest ratings.

Aspects of choral performance evaluated by adjudicators included group balance and blend, phrasing, dynamics, interpretation, precision, choice of

material, and stage presence (Wagner, 1991). Additionally, adjudicators supplemented or replaced ratings with laudatory comments or constructive criticism. Hines (1995) suggested that adjudicators focus on offering general solutions to problems of vocal technique demonstrated through a performance, rather than identifying specific errors. Adjudicators' ratings were calculated and a performance received a final score that was translated into a categorical descriptive rating. Terms such as "poor," "fair," "good," "excellent" or "superior" often indicated an adjudicator's overall summary of a music performance (Fox, 1990).

Many public school choral groups have had a tradition of participating in adjudicated events. In contrast, some music educators avoided adjudicated events and sought other performance venues for their choral groups. Fox (1990) theorized that most of the complaints about organized choral events were related to concerns about adjudication fairness and inconsistencies in how adjudicators made evaluation decisions.

According to Miller (1994), the competitive nature of adjudicated events promoted the conformity of all participants to a standard that defied standardization. Schmalstieg (1972) explained that because standards did not exist for some qualities of choral music performance, such as vocal production, achieving objective evaluation of music performance was difficult. Miller elaborated upon specific difficulties associated with a standardized approach to the evaluation of choral music at competitive events.

In order for competition to work, people must be measured by the same standard. The same rules apply to everyone, and the game must be played the same way each time . . . In attempting to meet those competition levels, many basics are ignored or left behind. The rating system we use at contests, for example, is a process whereby a shortage is deliberately and artificially manufactured (p. 32).

Miller asserted that the standardization of choral music performance ignored many basic skill levels. As a result, only choral groups perceived to have demonstrated exceptional performance skill levels were considered “the best” and assigned high adjudicator ratings.

The adjudication process required adjudicators to make evaluative decisions guided by their knowledge of music, previous choral experiences, and the perceived quality of the evaluated performance. Adjudicators provided ratings, rankings, or comments that were used to evaluate specific criteria related to aspects of the choral performance. Although evaluation criteria were predetermined, Radocy (1989) contended that adjudicators applied their personal criteria to the evaluation of choral music performance.

From the inception and through the evolution of the first adjudicated choral music events, music educators have expressed concerns related to factors that influence evaluation decisions and whether evaluative decisions are fair and accurate measures of choral group performance. Garman (1991) theorized that evaluation of music performance involves a complex set of interrelated, multi-dimensional influences. Therefore, precise measurements of music performances would be difficult to obtain because performance evaluations

consciously or subconsciously reflect the criteria adjudicators' view as most important. The use of objective measures to evaluate choral performance may contribute to resolving choral music educators' concerns regarding the extent to which choral performance evaluations are considered fair and accurate.

The Educational Value of Music Performance Adjudication

Roher (2002) noted that various competition/festivals are sponsored by professional organizations at district, state, regional, and national levels, with each organization maintaining a different perspective regarding the educational advantages of choral music adjudication. Advocates of competition/festivals believe that adjudication of music performance clarifies instructional goals and motivates students to achieve higher choral performance standards. Additionally, they believe that as a means of evaluation, music adjudication promotes higher music education standards and performance quality and results in a sense of accomplishment for participating choral groups.

Music educators disagree as to how choral performance ratings are interpreted and generalized to describe the overall effectiveness of choral music instruction and identified differences in performance abilities between choral groups from different schools. Rittenhouse (1989) indicated that public school administrators viewed the participation of school choral groups at adjudicated choral events favorably, based upon motivating factors that included winning awards and obtaining high performance ratings. For some administrators, success in adjudicated choral competitions provides a measure for evaluating a

school choral program and a music educator's ability to develop students' vocal performance abilities successfully during a given academic year. Choral music educators opposed to this view consider competition/festival adjudication as an extension of classroom goals and objectives in that the adjudicated events provide opportunities to promote students' musical and educational development.

The apparent benefits of choral performance adjudication extend beyond the participating choral group. In addition to providing opportunities for students to receive critiques that can enhance their choral skill development, the experience contributes to adjudicators' development. The knowledge gained from the adjudication process can heighten the auditory perception of adjudicators and develop their communication skills through the practice of providing written and verbal critiques. Given that music educators frequently served as adjudicators, the acquisition of these skills is valuable for improving choral music instruction, choral conducting skills, rehearsal techniques, and choral performance (NFHS, 2002).

Despite the apparent benefits that choral adjudication can provide, some choral music educators believe that the circumstances surrounding music adjudication produce negative effects. Critics have maintained that the competitive nature of choral festivals and music competitions is overemphasized and may diminish students' creativity, lower self-esteem, create performance anxiety, cause avoidance behavior, and decrease or eliminate students' continued involvement in school choral groups (Austin, 1990; Corbin, 1995).

Additionally, negative attitudes toward adjudication may result from the impact adjudication decisions have on choral group morale when ratings are perceived as too severe or an inaccurate representation of the choral groups' actual performance. Secondary concerns include the negative effect low ratings have on the perceptions of students, teachers, the general public, and music educators as to the performance ability of a school choral group. The implications of these negative effects are important to consider, as they are in conflict with the goals of music education and its role in American public schools (Rohrer, 2002). As Austin (1990) has stated:

The quickest route to understanding why competition has limited effectiveness as a teaching tool is to consider what it really means to compete. Competition . . . produces few winners and many losers; one person's success requires another person's failure (p. 23).

Competition/festivals are events that emphasize external rewards, such as ratings, to reflect choral performance achievement (Fox, 1990). The prospect of obtaining external rewards frequently becomes the primary motivating factor for performing ensembles, directors, and school administration. Corbin (1995) noted that efforts to acquire the highest ratings increases rehearsal pressure, causes anxiety and results in deviations from quality teaching. Austin (1990) suggested that preparing for music competitions causes music educators to become less effective when the instructional emphasis consists of developing only the "high-

ability” students that are perceived as being important to competitive success.

Additionally Austin explained:

Because these teachers focus on maintaining a performance image rather than on employing specific instructional strategies to help students improve, low achievers find themselves trapped. . .neither talented enough to help the teacher’s cause nor equipped with the tools for progress (p. 25).

Performance is an essential component of choral music education.

Adjudicated events should be an opportunity to obtain professional feedback and confirm students’ accomplishments, rather than an opportunity to select and concentrate upon developing students with highest ability (Corbin, 1995). This perspective affirms, “adjudication is a true extension of the classroom and a valuable component of the music education process” (NSFH, 2002).

Although many issues surround the question of the value of choral contest/festivals and the adjudication of participants, these events remain an important part of choral music education. The potential benefits derived from the performance experience and consequent evaluations associated with adjudicated choral contest/festivals contribute to a choral groups’ overall effort to obtain continued growth through improved choral performance skills.

Adjudicator Qualifications

The process used to select qualified music adjudicators lacks a national consensus and varies depending on the sponsoring organization and the type of

event being adjudicated. In the absence of national guidelines indicating specific criteria for selecting choral adjudicators, event organizers consider selecting adjudicators based on their credentials, affordability, reputation, willingness to adjudicate, availability, and other factors. Frequently, sponsoring organizations seek choral adjudicators whom they perceive to be successful in areas that include music instruction, choral conducting or vocal music performance. Many state music education organizations offer adjudicator training or have specific prerequisites to qualify as an adjudicator.

The researchers' review of the North Carolina Music Educators Association (NCMEA) adjudication criteria revealed foundational requirements for choral performance adjudication. For example, the NCMEA requires an adjudicator to have taught within the state for five years and to be an active member of the organization (NCMEA, 2001); however, choral music adjudication criteria developed by the California Music Educators Association (CMEA) (Cook, n.d.) and Colorado Music Educators Association specifies the purpose of adjudication, the organizations' commitment to maintaining and improving adjudication standards, adjudicator training requirements, and the organizations' philosophy of adjudication (Borgmann, 2000).

Both the CMEA and the NCMEA require a prospective adjudicator to possess a current, active membership. Additionally, the CMEA requires prospective adjudicators to have conducted choral groups that received three or more consecutive superior ratings at the organizations' large ensemble choral

festivals. Choral music educators desiring to participate in the CMEA adjudicator apprenticeship trainee program must be recommended by a CMEA active adjudicator or CMEA Board member and approved by the CMEA Board of Directors. During supervised training, a prospective adjudicator is expected to demonstrate written and oral communication proficiency by providing appropriate responses to questions regarding various performance standard levels, demonstrate knowledge related to students' backgrounds, and demonstrate the ability to provide stimulating performance feedback that recognizes student achievements and includes constructive criticism for areas needing improvement. Individuals confirmed as qualified to adjudicate are required to attend workshops and receive additional training sessions every two years (Cook, 2002).

The Colorado Music Educators Association developed an adjudicators' training and certification program in response to concerns expressed by choral music educators regarding variance in adjudicators' evaluation ratings. The purpose of this training was to provide adjudicators with the same criteria to consider in the evaluation of choral performance and the assigning of choral group ratings. Borgmann (2000) determined that implementing the adjudication training and certification program was effective and resulted in decreased complaints from choral music educators regarding variance in adjudicators' choral performance evaluation ratings.

Advocates for objective choral music performance evaluations have suggested that adjudicators must avoid subjective criteria when evaluating music

performances. Radocy (1989) reported that adjudicators may reach a consensus in determining the overall quality of music performance; however, subjective non-musical aspects of the performance influence their decisions.

The Issue of Fair and Accurate Adjudication

Concern for fairness and accuracy in music adjudication has prompted the study of factors affecting adjudicators' evaluation decisions. Music evaluations and ratings that reflect nonbiased evaluation decisions are considered objective measurements. Choral music education scholars have recognized the inherent value associated with understanding how specific factors may affect the evaluation of music performance. Bergee and Platt (2003) indicated that the importance assigned to adjudicated music events by educators and students supported the need for research examining factors that may affect adjudicators' evaluation decisions, and suggested that the identification of these factors will provide useful information that can be considered in developing approaches designed to counter inconsistencies in adjudicators' choral performance evaluation ratings.

Davidson and Edgar (2003) also discussed the need for music educators to recognize and consider subjective factors that may affect various aspects of the adjudication process and factors relevant to how objective evaluation decisions are determined. MacTavish (1997) suggested that the best adjudicators are choral conductors with musical training and experience beyond that of public school music educators. This perspective assumes that the

professional achievements of choral directors at the college/university level supersede those of public school music educators, and as adjudicators, they would be able to provide comments benefiting the most advanced choral groups; however, this assumption is not necessarily logical or valid.

This viewpoint overlooks elementary and secondary public school choral music educators with levels of education, musical training, and professional experiences comparable to choral music educators at the college/university level. Many music educators that are qualified to teach at the college/university level have chosen to maintain careers as public school music educators. Their career decisions are not necessarily indicators of their ability to adjudicate choral performances as effectively as their college/university colleagues.

Extraneous Factors Affecting Adjudicator Evaluation of Choral Performance

Notwithstanding adjudicators' efforts to render objective judgments, extraneous, non-music factors affect the adjudication process and evaluation outcomes. These factors include: (a) the background and philosophy of event organizers, (b) adjudicators' experience, (c) adjudicators' expectations for a groups' performance ability, (d) external visual aspects of performers, and (e) adjudicators' music preferences (Duerksen, 1972; Elliott, 1995; Killian, 1990; LeBlanc, 1980; Robinson, 1990; Wapnick, Darrow, Kovacs, & Dalrymple, 1997; Wapnick, Darrow & Mazza, 1998).

McClung (1996) suggested that appropriate and effective evaluation of choral music performance reflects the learning objectives that guide the instructional process; however, obtaining such evaluations presents challenges due to various factors that influence adjudicators' decisions. Factors considered to be acceptable influences upon music evaluation include those related to musical elements and characteristics. Nevertheless, the evaluation of these elements and characteristics as presented in performance may be influenced by choral sound preferences, choral performance interpretations, cultural experiences, belief systems, and socialization processes of the choral music educator and adjudicator.

Additional concerns include the extent to which perceived extraneous, non-musical factors such as performers' physical characteristics affect adjudicators' ratings. Performance ratings perceived by music educators to be related to non-musical aspects, such as the racial characteristics of the performer, are considered biased judgments (McClung, 1996). Considerations of non-music factors such as those associated with the performers' external characteristics may unduly compromise adjudicators' ability to render accurate musical judgments.

The importance of providing choral groups with performance evaluation opportunities that are nonbiased is underscored by the increasing cultural, racial, and ethnic diversity characterizing student populations in educational systems in the United States. If factors related to performers' external characteristics,

including racial characteristics, are determined to affect or bias adjudicators' ratings of choral music performance, then such factors are undesirable and should be controlled.

Perceptions of Race and Ethnicity

Differences in physical characteristics are observable traits that are considered in the identification of racial and ethnic groups. Mickelson (2003) posited that the term *race* is a social construct based upon two aspects: (a) how individuals identify themselves racially and (b) perceived differences in racial identification as constructed by others.

In describing a related social construct for identity, Dijk (1987) indicated that the term *ethnic* is applied to social groups identified in ethnic or racial terms according to their physical characteristics and socio-cultural properties, including place of origin and language. Further, Dijk theorized that recognition of identifiable external characteristics is learned behavior and perceptions of these characteristics are indicators of ethnic categories. Similarly, Rothenberg (2001) suggested that ethnicity is based upon the shared heritage, social and cultural experiences and traits of various ethnic groups.

Research studies have revealed that music performance preferences are influenced by external characteristics related to the perceived racial identity of the performer (Elliott, C., 1995; Killian, J., 1990; Morrison, S., 1998). If external characteristics related to the performers' perceived race or ethnicity are indeed factors that contribute to preferences for music performance, then understanding

whether these characteristics have an effect on adjudicators' evaluation ratings of choral groups is important and necessary.

Researchers have focused on investigating preferences of persons of varied racial backgrounds for performances by persons of the same race or of different races. For example, McCrary (1990) examined the effect of listeners' race on music listening preferences and reported different preference responses for Black and White racial groups. Black listeners preferred music by Black performers, whereas White listeners demonstrated preference for music by both Black and White performers. McCrary's study suggests that listeners' preferences for performances are influenced not only by the perceived race of the performer, but also by the race of the listener. Moreover, these observed music preferences may be indicative of specific group social preferences.

Ethnic Social Encounters and Preference

Nugent, Faucette, and Kromrey (1996) suggested that some individuals are more comfortable than others when socializing with persons of a different race or ethnicity than themselves. Morrison (1998) contended that group social preferences involve establishing potential relationships based on commonalities identified between social groups; however, group social preferences differ according to ethnicity and culture. The term *ethnic social encounter preference* refers to the inclination to form social relationships across racial lines (Ellis, Wright, & Parks, 2003).

Ellis, Wright, & Parks (2003) evaluated inter-racial friendships by examining responses to a general social survey, which indicated that perceptions related to ethnic images are primary factors influencing group attitudes and social distances people desired between themselves and other groups. Additionally, the findings revealed that most minority groups are viewed negatively, based on several characteristics, and that ethnic images are primary factors influencing group attitudes and social distance.

A study (Kolk, 1978) conducted to examine social distance and ethnic encounters reported the presence of physiological tension among Blacks, Puerto Ricans, and Whites when they considered the possibility of encountering other ethnic groups. These tensions were observed through reports of internalized conflicts, fear, and consistently high levels of stress across groups. Similarly, the perception that Black and White racial groups have of each other contributed to social distance between the two groups and a reluctance to develop social relationships due to negative racial attitudes and beliefs associated with racial perceptions (Blascovich, J., Mendes, W. B., Hunter, S. B., Lickel, B., & Kowai-Bell, N., 2001; Hraba, J., Radloff, T., & Gray-Ray, P., 1999; Kolk, 1978; Radloff & Evans, 2003; Wright, M., & Littleford, L., 2002).

Considering the previously identified attitudes and beliefs associated with race and ethnicity, external racial and ethnic characteristics, and the potential influence that non-musical factors such as performers' external characteristics may have on the evaluation of music performance, understanding the extent to

which factors related to race and ethnicity may contribute to adjudicators' ratings of choral group performance seems essential. Furthermore, as factors related to biases, preferences, attitudes, and cultural beliefs may inform music performance decisions, investigations of possible relationships between these decisions and those which may enhance or impede instruction, performance, and evaluation ratings of individual students in the choral classroom would be useful and important.

Statement of Purpose

The purpose of this study was to investigate the effect of adjudicators' race and racial perception on their ratings of choral performances attributed to homogenous Black, homogeneous White and heterogeneous Black and White groups. A secondary research objective included an examination of the magnitude of relationship between adjudicators' choral performance ratings and their self-reported ethnic social encounter preferences.

Definition of Terms

For the purpose of this study, the term *adjudicator* is defined as an individual selected to judge, rate, and comment upon specific aspects of choral performance (Garman, 1991). The term *ethnic social encounter preference* refers to expressed inclinations for establishing individual friendships, relationships or social interactions on the basis of racial or ethnic group differences (Ellis, Wright, & Parks, 2003).

Contributions of the Current Study to Music Education

The findings of this study will add to the extant research literature identifying factors that may influence choral evaluation ratings. The evaluation of choral performance is an important aspect of choral music instruction, yet there is limited research on how extraneous non-musical factors related to race, racial perceptions and ethnic social encounter preferences may affect choral adjudication. Choral music educators working with diverse student populations may value research investigating the extent to which race and ethnicity affect adjudicators' evaluation of choral music performance. Knowledge of the influence these constructs may have on evaluation may inform future efforts to assess evaluation procedures used for adjudicated choral events.

CHAPTER II

REVIEW OF THE LITERATURE

Previous studies related to the adjudication of music performance primarily have examined evaluations of instrumental soloists, vocal soloists and group instrumental music performances. Research conducted to determine the extent to which choral music evaluation may be affected by factors related to the performers' racial characteristics and self-reported preferences for ethnic social encounters is limited. Most studies have examined these factors only indirectly. Chapter II presents a discussion of the influence of extraneous, non-music variables on the evaluation of music performance, the central focus of the current investigation.

Researchers in music and other academic areas have examined the influence of external factors related to race, ethnic social encounter preferences, gender, and physical attractiveness on academic and musical performance expectations and evaluation outcomes. Significant findings were related to the influence of external factors on reliability of music performance evaluations based on adjudicators' expectations, music preferences, the evaluation process, and patterns in adjudicators' ratings of music performance (Bermingham, 2000; Buck, & Tiene, 1989; Chang, & Stanley, 2003; Duerksen, 1972; Elliott, 1995;

Killan, 1990; Kolk, 1978; McCrary, 1993; Wapnick, Darrow, Kovacs, & Dalrymple, 1997). The following discussion addresses concerns related to factors believed to influence reliability in music performance evaluations, and the extent to which such non-music variables affect the evaluation of instrumental and vocal music performance.

Reliability in Music Performance Evaluations

Perceived fairness in music performance adjudication is a primary concern that has prompted examinations of variables that may influence the adjudication process. Bergee (1989) suggested that the subjective nature of specific variables thought to affect adjudicators' evaluation of music performance makes research difficult, as complex sets of interrelated factors influence perceptions of music performance.

Upon reviewing research regarding music performance evaluation, Wagner (1991) discovered that obtaining high inter-rater reliability among adjudicators' evaluations of the same music performance is difficult. Similarly, experienced adjudicators seldom demonstrate consistency rates above 25% when rating the same performance twice. The reliability of music performance ratings was determined to be affected by factors such as performers' appearance, conductors' styles, and the influence of the sequence in which ensembles perform upon adjudicator's interpretation of performance quality.

The importance of inter-rater reliability in evaluation stems from a need to control for inherent differences in how evaluators may perceive the achievement

of those being evaluated. Although music performance evaluation is typically guided by an established musical standard, adjudicators may differ in their determination of what constitutes achievement of that standard. If non-musical factors also influence adjudicators' evaluation of music performance, then the objective of providing accurate evaluations of music performance is further compromised.

Research studies have examined whether and to what extent musical and non-musical factors may influence adjudicators' evaluation of music performances. In the following section, a discussion of research studies focusing on the effect of extraneous, non-musical factors on music performance evaluation is presented.

Non-Music Factors Affecting Evaluation of Instrumental Performance

Two categories of variables are suggested to affect the evaluation of music performance: (a) variables related to music stimuli, and (b) variables related to non-music stimuli. Personal sound preferences and performance interpretations are variables belonging to the first category. The second category is comprised of variables such as external characteristics, including those associated with ethnicity and race; adjudicators' socio-cultural experiences, the gender of the performer and the adjudicator, and the perceived physical attractiveness of the performer (Bermingham, 2000; Buck, & Tiene, 1989; Chang,

& Stanley, 2003; Duerksen, 1972; Elliott, 1995; Killan, 1990; Kolk, 1978; McCrary, 1993; Wagner, 1991; Wapnick, Darrow, & Mazza, 1998).

Studies have examined the influence of non-music stimuli such as visual cues on the adjudication of instrumental music performance. Gillespie (1997) conducted a study comparing ratings of vibrato speed, width, evenness, overall sound and pitch stability in audiovisual and audio-only performances of violinists and violists. Subjects were experienced and inexperienced players. The audiovisual and audio-only performances were rated twice by adjudicators with an interim of six months between the two rating sessions. Findings revealed that ratings in all areas were higher for the experienced musicians, regardless of the presentation mode; however, significantly higher ratings ($p = .01$) for overall sound were observed for the inexperienced players' audiovisual performance, when compared to their audio-only performances. Similarly, the experienced players' audiovisual performance was significantly higher ($p = .04$) than were their audio-only performance ratings. These findings suggest that visual cues positively affect evaluations of musical performances by inexperienced musicians.

A study by Wapnick, Darrow, and Mazza (1998) sought to determine the extent to which violinists' attractiveness, performance attire, and stage behavior influenced their performance evaluation ratings. The 72 subjects were comprised of graduate music students and university music faculty. Subjects were randomly assigned to one of three treatment groups in which they: (a) evaluated the

physical attractiveness of a performer based upon factors specific to performance attire, attractiveness, and stage behavior as presented in a videotape with no aural stimulus; (b) rated audio and visual aspects of a videotaped performance with regard to phrasing, intonation, dynamics, quality of sound and on two rating scales for the overall performance, or (c) evaluated an audio-only recorded performance. The aural stimulus was the same for subjects assigned to the audio-only and audio visual groups. Results revealed a significant main effect for attractiveness on each of the six test items for audiovisual observations ($p < .0001$). Additional findings revealed a significant main effect for the performers' gender across groups ($p < .004$), with the ratings of male violinists higher for attractiveness, performance attire, and stage behavior than the ratings assigned to female violinists.

In a similar study, Wapnick et al. (2000) explored the effect of performance attire, stage behavior, and physical attractiveness on performance ratings of sixth-grade pianists. Subjects were 123 undergraduate and graduate music students, assigned to one of three treatment groups in which they: (a) evaluated an audio-only performance in five test areas, (b) evaluated an audiovisual performance in five test areas, or (c) evaluated an audiovisual performance without sound with regard to pianists' performance attire, stage behavior, and physical attractiveness. The researchers discovered a significant main effect for gender of the pianist across categories ($p < .001$), with male pianists receiving higher ratings than did females. There was also a significant

interaction effect ($p = .02$) observed for gender of the performer and rating categories, with females across groups receiving high ratings for physical attractiveness; however, findings indicated that males received higher ratings than did females on dress and behavior ($p < .003$). The study revealed that highly skilled pianists received higher ratings than did less skilled pianists only under audio-only conditions.

In both studies conducted by Wapnick et al. (1998, 2000), visual cues influenced the evaluation of instrumental performance. The results of the studies also suggest that, in evaluative situations, performers perceived to be physically attractive have an advantage over performers perceived to be less attractive, even when the quality of performance among all participants is comparable.

Ryan and Costa-Giomi (2004) examined the effect of physical attractiveness and gender on the evaluation of piano performance. Subjects were 32 elementary children; 24 non-music undergraduate students enrolled in introductory piano class; and 19 undergraduate students enrolled in a music methods class. Each of the subjects evaluated 10 selected piano performances presented by 5 male and 5 female sixth-graders, each with three years of piano lessons. The researchers discovered a significant interaction between attractiveness and gender ($p = .032$). Males perceived to be attractive were rated higher than were males perceived to be unattractive, and females perceived to be unattractive were rated lower than were females perceived to be attractive.

In a two-part study, Benson (1996) examined effects of audio and audiovisual presentations on the evaluation of piano performance. The study explored factors related to differences between evaluations provided by performers, their teachers, and adjudicators. Subjects for both parts of the study were 10 university non-music majors, enrolled in piano instruction. In Part 1 of the study, a video-tape and audio-tape of a piano recital performed by the subjects was recorded and evaluated by performers and their teachers; in Part 2 of the study, the same performance was evaluated by 20 university music majors. Specific aspects of the performance evaluation included rhythm, tempo, phrasing, balance, note accuracy, dynamics, technique, and overall performance. In Part 1 of the study, Benson reported significant differences between the ratings of students and the ratings of teachers related to dynamics, tempo, technique, and note accuracy ($p < .01$) and overall ratings ($p < .05$).

In Part 2 of the study, Benson found that for the phrasing category, adjudicator ratings of the video-taped performance were significantly higher ($p < .001$) than were adjudicator ratings for the audio-taped performance. Additional findings indicated that adjudicators' evaluation of the audio performance included more comments on specific aspects of the music in comparison to adjudicators' evaluation of the videotaped performance.

The findings of these studies suggest that the presentation of aural-only performances may enable adjudicators to focus primarily on music-related factors in their evaluations, and that visual cues are intervening variables in

instrumental performance evaluation. Although visual cues such as “stage presence” have typically been acknowledged as an important component of performance evaluation, other visual cues, such as physical attractiveness and performance attire, are more subtle intervening factors that may compromise the accurate evaluation of music performance. The following section presents a discussion of studies that focus on the effect of non-music factors associated with the performers’ external characteristics on the evaluation of vocal music performance.

Non-Music Factors Affecting Evaluation of Vocal Music Performance

Wapnick, Darrow, Kovacs, and Dalrymple (1997) examined the effect of mode of presentation, physical attractiveness, and gender on evaluation ratings of vocal performances. Subjects were 82 musicians assigned to evaluate the physical attractiveness of six male and eight female singers, under visual-only, audiovisual, or audio-only treatment conditions. The study revealed a significant main effect ($p = .0001$) of attractiveness, with singers considered more attractive receiving higher ratings than did singers considered less attractive. Additionally, Wapnick et al. discovered a significant main effect ($p = .005$) of gender, with females singers receiving higher performance ratings than did male singers. The researchers suggested that adjudicators’ conscious or subconscious perceptions of the attractiveness of the singer influenced their ratings of the vocal performances.

Davidson and Coimbra (2001) examined the effect of perceived physical appearance on mid-term recital assessments of 21 second-year vocal studies students enrolled in a school of music. Subjects selected to evaluate the vocal performances were four faculty members in the vocal studies department. The four voice faculty members provided comments and percentage assessments to reflect impressions of strengths and weaknesses of student performances. Results indicated a significant difference in mid-term recital scores ($p < 0.001$) between performers perceived to be physically attractive by adjudicators, and those perceived to be less attractive. Davidson and Coimbra concluded that the results suggested a common set of personal evaluation criteria related to the performers' physical appearance influenced vocal performance scores.

The results of the studies regarding the influence of non-music factors on the evaluation of vocal performance are similar to those found in studies examining the evaluation of instrumental music performance, and suggest that physical characteristics are intervening factors in decisions related to evaluative outcomes for music performance. Continuing in this vein, researchers have included examinations of race as a physical characteristic that may influence evaluations of music performance.

Racial Differences and Music Performance Evaluation

Bermingham (2000) analyzed research literature related to the effect of performers' external characteristics on the evaluation of instrumental and vocal music performance. Results of the reviewed studies revealed that biases affect

adjudicators' evaluation decisions. For most of the studies, strong, positive correlations were found between high performance ratings and the gender, perceived physical attractiveness, and race of the performers. Bermingham suggested that the magnitude of the correlation between these variables is dependent upon the type of music performed.

Elliott (1995) explored the effect of race and gender on music evaluation decisions. Subjects for the study were 88 undergraduate and graduate music education majors. The researcher presented a videotaped performance of eight instrumentalists performing the same musical selection for subjects to evaluate; however, control measures were taken for differences that might be perceived in subjects' playing ability. Elliott found a significant main effect for race ($p = .0001$) with Blacks scoring significantly lower than Whites. Elliott suggested that, with regard to music performance evaluation, issues related to race and gender should be incorporated into the preparation of all prospective musicians and music educators.

Results of these studies suggest that perceived physical characteristics associated with race are among the non-musical factors that may influence adjudicators' evaluation of performances. Although Elliott's (1995) study is the only one among those reviewed that specifically examines the influence of race on performance evaluations, as opposed to the influence of race on performance preferences, all of the studies cited suggest that adjudicators' racial identity and

the perceived race of the performer may be intervening variables in the music evaluation process that bear further investigation.

Summary

Findings of the reviewed literature suggest that evaluations of instrumental and vocal music performance are significantly affected by external, nonmusical characteristics of the performer. Previous studies focusing upon the adjudication of music performance have examined factors related to the evaluation of instrumental soloists, vocal soloists or group instrumental music performance. In addition, studies in music and other academic areas indicate that external factors such as race, ethnic social preferences, gender, and physical attractiveness influence performance expectations and evaluation outcomes (Bermingham, 2000; Buck, & Tiene, 1989; Chang, & Stanley, 2003; Duerksen, 1972; Elliott, 1995; Killian, 1990; Kolk, 1978; Wapnick, Darrow, Kovacs, & Dalrymple, 1997). These results suggest that investigations of the influence of these factors on the evaluation of choral music performances are warranted.

Restatement of Purpose

The purpose of this study was to investigate the effect of adjudicators' race and racial perception on their ratings of choral performances attributed to homogeneous Black, homogenous White, and heterogeneous Black and White groups. A secondary research objective included an examination of the

magnitude of relationship between adjudicators' choral performance ratings and their self-reported ethnic social encounter preferences.

Null Hypotheses

Three null hypotheses were tested:

1. There is no significant main effect of adjudicators' racial perception on their ratings of choral performances attributed to homogeneous Black, homogeneous White and heterogeneous Black and White groups.
2. There is no significant main effect of adjudicators' self-reported racial identification on their ratings of choral performances attributed to homogeneous Black, homogeneous White and heterogeneous Black and White groups.
3. There is no significant interaction effect of adjudicators' self-reported racial identification and adjudicators' racial perception on their ratings of choral performances attributed to homogeneous Black, homogeneous White and heterogeneous Black and White groups.

An alpha level of .05 was established for analyses conducted to test the null hypotheses and to investigate the secondary research objective.

CHAPTER III

METHODS AND PROCEDURES

Researchers have suggested that non-musical factors related to performers' external characteristics and adjudicators' personal preferences may influence the evaluation ratings of instrumental and vocal music performance. The current study examined the effect of adjudicators' race and racial perception on their ratings of choral performances attributed to homogeneous Black, homogeneous White, and heterogeneous Black and White groups. A secondary research objective included an examination of the magnitude of relationship between adjudicators' choral performance ratings and their self-reported ethnic social encounter preferences.

Selection of Subjects

The subjects for the study were 26 choral music educators from Guilford, Mecklenburg, Forsyth, Rockingham, and Durham counties in North Carolina. Of the 26 subjects, 15 were Black and 11 were White; seven were male and 19 were female. Four subjects taught choral music in middle schools, 18 subjects taught choral music in high schools, and 4 subjects taught choral music at the university level. Subject selection was based upon criteria established by the Choral Section of the North Carolina Music Educators Association (NCMEA) and

used to select choral adjudicators for NCMEA regional choral events. The NCMEA criteria indicated that adjudicators must have attained at least five years of teaching experience in North Carolina at the junior high/middle school, high school, or university level (NCMEA, 2001). The NCMEA requirement that adjudicators possess current membership in the organization was not a prerequisite for subjects to participate in the current study. Subjects were required to have attained at least a bachelor's degree in music education; however previous experience as an adjudicator was not a requirement. Table 1 shows the number of subjects, categorized by race, gender, and treatment group.

Table 1
Subjects Categorized by Race and Gender across Treatment Groups

Subjects	Group A	Group B	Group C
Black Male	2	1	1
Black Female	4	4	3
White Male	3	0	0
White Female	1	3	4

A sample of 30 subjects was considered sufficient for purposes of the current study, based upon a consultation with a statistician in the Educational Research Methodology Department at The University of North Carolina at Greensboro. The comparison group was identified as the population of choral music educators eligible to adjudicate North Carolina choral festivals according to the NCMEA criteria used for subject selection in the current study. According to the current NCMEA Coordinator of Choral Activities, 62 White and 3 Black choral music educators served as adjudicators in 2003 and 2004 (L. Brown, personal communication, May 15, 2004); thus a population size of 65 was established for the comparison group. A sample size of 30 subjects represented greater than 10% of eligible choral music adjudicators in the comparison group population. Consequently, a sample of 30 subjects was deemed sufficient in size to conduct tests of significance in the current study.

Internet searches were conducted to obtain the electronic mail addresses of potential participants from 74 high schools and 30 North Carolina institutions of higher education (The College Board College Handbook, 2001), located in four North Carolina counties: Forsyth, Guilford, Mecklenburg, and Wake. To increase potential for recruiting local participants, the electronic mail list was expanded to include choral music educators from Rockingham County, based upon referrals obtained from local choral music educators regarding potential participants in that who were retired music educators. Additionally, telephone numbers of retired choral music educators which were obtained through personal communications

with other choral music educators. The retired choral music educators were contacted by telephone and their electronic mail addresses were included on the list of potential participants with primary teaching responsibilities in choral music education.

Using a survey development web site (<http://www.surveymonkey.com>), the researcher created an online pretreatment survey. The eight-item multiple-choice pretreatment survey, which constituted the first phase of the current research study, required that respondents provide information specific to their gender, primary area of teaching responsibilities, educational level of current teaching responsibility, years of teaching experience, highest educational level completed, current NCMEA membership status, previous NCMEA membership status, and their self-reported racial identity. A letter of invitation to complete the pretreatment survey was composed and sent by electronic mail from the survey development web site to 135 choral music educators identified in the four selected North Carolina counties. The letter of invitation explained the purpose of the study; however the design of the study and the variables examined required that the true purpose of the study not be divulged to the potential participants. Therefore, the letter of invitation indicated to the potential participants that the purpose of the study was to investigate factors that may influence their evaluation ratings of an audio-only recorded choral performance. In addition, the letter of invitation explained the time requirements for participation, addressed confidentiality concerns, and indicated how data would be stored. Required

content for the participant consent form was approved by the University of North Carolina at Greensboro Institution Review Board (see Appendix A). The consent form indicated to each choral music educator that completion of the pretreatment survey signified their informed consent to participate in the additional phases of the current study. Two hyperlinks were included in the letter of invitation sent by electronic mail. The first hyperlink provided recipients with direct access to the online eight-item multiple-choice pretreatment survey. The second hyperlink directed recipients to a page where they were provided the option of declining the invitation to participate in the pretreatment survey.

Forty-seven music educators responded to the letter of invitation within the first week; forty-two completed the pretreatment survey and five declined to participate. A tracking feature offered by the online survey development web site was enabled for the pretreatment survey to confirm the identity of each respondent by his or her name and electronic mail address. Printed copies of the 42 completed pretreatment surveys were reviewed to determine whether the respondents met eligibility requirements. From this review, two instrumental music educators were identified as ineligible to participate in the subject selection procedure. The remaining 40 respondents were identified as choral music educators and met the NCMEA criteria for subject selection.

Information related to the identity of each respondent was deleted for the subject selection procedure and substituted with an identification code consisting of a letter followed by three numerical digits. The letters "B" and "W" represented

the pretreatment survey respondents' self-reported Black or White racial category. The three numerical digits were extracted from the last three digits indicating the hour, minute, and second the completed pretreatment survey was submitted to the online survey development web site by the respondent.

Assignment of Subjects and Treatments

Based upon their self-reported racial identification, persons responding to the pretreatment online survey were separated into Black and White racial groups. Fifteen Black respondents and fifteen White respondents were selected randomly from each group and three sets of five respondents from each racial group were assigned randomly to one of three groups: Experimental Treatment Group A ($n = 10$), Experimental Treatment Group B ($n = 10$), or Control Group C ($n = 10$). Subjects in each group listened to the same choral performance stimulus; however, Group A, B, and C were presented respectively with a picture depicting either a choral group that might be perceived to be comprised of Black members, a choral group that might be perceived to be comprised of White members, or a choral group that might be perceived to be comprised of Black and White members.

An electronic mail communication was sent to randomly-selected respondents, formally inviting them to participate as subjects in Phase 2 of the study. The electronic mail communication provided information regarding the purpose of the study and outlined the time and travel requirements necessary for respondents to participate in the experimental procedure. Respondents were

asked to confirm their participation by phone or electronic mail within two days of their receipt of the invitation to participate in the study.

Of the 30 respondents initially contacted, nine failed to reply to reminder requests to confirm their participation. Consequently, access to the online pretreatment survey was made available for an additional two-week period. Personalized electronic mail communications were sent to the 88 choral music educators who did not respond to the initial request to complete the pretreatment survey. Additionally, eight local retired choral music educators were telephoned to confirm their receipt of the pretreatment survey invitation and to request their favorable consideration of the invitation request. The combination of these efforts resulted in an additional 12 Black and 10 White respondents to the pretreatment surveys that were eligible to participate in the current study. Application of the random selection procedure allowed for the replacement of those respondents who failed to confirm their participation in the study, thus balancing the number of subjects across race and across the two treatment groups and the control group. The assigned respondents resulting from this second application of the selection procedure constituted the subjects for the current study.

Validation of Experimental Treatment Photographs

Photographs used in the experimental treatment were taken under controlled conditions by a professional photographer using a *Nikon N90*® 35-millimeter camera containing *Fuji*® 400 speed film. The photographer was positioned a distance of 19 feet from the center point of the first row of a three-

level set of *Wenger*® choral risers. Photography lighting equipment consisted of two 480 watt second strobe lights placed on both sides of the photographer and directed toward the choral risers. The light on the right side of the photographer was set at a height of 12 feet and the light on the left side of the photographer was set at a height of 10 feet. Additional lighting included a 500 watt, 120 volt halogen scoop light positioned 16 feet above the choral risers.

Forty volunteers, solicited through phone conversations with two local high school drama teachers, were arranged in groups of 19 to pose for each of three group photographs to be used in the study: (a) one photograph that might be perceived by subjects in Treatment Group A as a racially homogeneous choral group comprised of Black members, (b) one photograph that might be perceived by subjects in Treatment Group B as a racially homogeneous choral group comprised of White members, and (c) one photograph that might be perceived by subjects in Control Group C as a racially heterogeneous choral group comprised of Black and White members. To provide consistency of group attire in the photographs, each volunteer was given a cream-colored choir robe obtained from a local Baptist church. Volunteers also were given cream-colored satin choir stoles. The satin stoles were reversed to conceal the 3-inch monogrammed initials representing the name of the church. In each of the three photographed groups, volunteers were positioned on the choral risers according to their height and in a manner simulating soprano, alto, tenor, and bass voice sections. Black

stage curtains provided the background for each of the three groups photographed.

The photographic proofs were reviewed to select the specific photographs to be used in the study. The proofs were developed by the photographer into three 8 x 10-inch color photographs on glossy paper and framed using a 10 ½ x 15-inch crescent mat board that concealed the various casual and athletic shoes worn by the volunteers. The 8 x 10-inch color photographs were matted and a 5 x 10 ½-inch image of the choral group remained visible (see Appendix B).

Measures were taken to ensure that the perceived racial makeup of groups in each of the three photographs would be as intended for the experimental treatment. Twenty-one high school teacher volunteers were provided a survey form (see Appendix C), accompanied by a photograph of each group. Each volunteer was requested to specify the race of the group depicted in the photograph. The response options for each photographed group included: "Black only," "Black and White," "White only," and "Other." Analysis of responses to the survey items for the photograph intended to depict a racially homogeneous choral group comprised of Black members revealed that 57% of the high school teachers perceived the photographed group to be Black and 43% perceived the same group to be Black and White. For the photograph intended to depict a racially homogeneous choral group comprised of White members, responses indicated that 86% chose the response option "White," 9% chose the response option "Black and White," and 5% chose the response option "Other". For the

photograph intended to depict a racially heterogeneous choral group comprised of Black and White members, 95% of those surveyed chose the response option “Black and White” and 5% chose the response option “Other.”

Based on the survey responses, additional information was obtained from survey participants to determine which individuals in the group photograph may have influenced respondents’ perceptions of the race of members comprising each photographed group. The survey respondents suggested that a female in the photograph of the Black choral group, who self-identified as biracial, contributed to the group being perceived as White; in contrast, a different female in the photograph of the White choral group, who self-identified as bi-racial contributed to the group being perceived as Black. A male who self-identified as Hispanic and the same two biracial females in the photograph of the Black and White choral group contributed to group being perceived as other than Black or White. These findings indicated the need to implement additional control measures to increase the accuracy of perceived group racial identification for each of the three photographed groups.

A digital imaging specialist was provided with the three photographs and asked to darken the facial features of the biracial female in the photograph intended to depict a Black choral group; lighten the facial features and change the hair color of the biracial female in the photograph intended to depict a White choral group and replace the face of the Hispanic male with the face of a White male in the photograph intended to depict a Black and White choral group. The

digital imaging specialist made the requested modifications and the original photographs, negatives, and a compact disk containing the files of the digitally-modified photographs were provided to the researcher. The digitally-modified photograph files saved on the compact disk were copied to a Dell *Inspiron*® 8130 laptop computer. The researcher elected to create a Microsoft *PowerPoint*® presentation containing the modified photographs, rather than employ the photographer to develop and frame the digitally-modified photographs prior to conducting a second validation survey.

The second survey conducted with the group photographs involved a different group of twenty-four high school teacher volunteers who were provided with a survey form and directions identical to those provided the volunteers who participated in the first survey. The only difference in the first and second survey was the method used to present the photographs to the volunteers. The volunteer participants in the second survey viewed the photographs as presented in the researcher-designed *PowerPoint*® presentation, rather than viewing hardcopies of the group photographs. Results from the second survey are presented in Table 2. In the second survey, a higher percentage of the respondents accurately perceived the intended race of the groups in the three photographs. For the photograph intended to depict a Black choir, responses to the second survey revealed that 96% perceived the group in the photograph to be Black and 4% perceived the group to be Black and White.

Table 2
Racial Perception of Pre-digitally-Modified (PreM) Group Photographs and Post-digitally-Modified (PostM) Group Photographs

Perceived Race	PreM Respondents (n = 21)		PostM Respondents (n = 24)			
	Group A (Black) Photograph		Group B (White) Photograph		Group C (B&W) Photograph	
	<u>PreM</u>	<u>PostM</u>	<u>PreM</u>	<u>PostM</u>	<u>PreM</u>	<u>PostM</u>
Black	57%	96%	0%	0%	0%	0%
White	0%	0%	86%	96%	0%	0%
B&W	43%	4%	9%	4%	95%	96%
Other	0%	0%	5%	0%	5%	4%

Note: B&W = Black and White

For the photograph intended to depict a White choir, responses indicated that 96% perceived the group to be White and 4% perceived the group to be Black and White. For the photograph intended to depict a choir comprised of Black and White members 96% perceived the group to be Black and White and 4% selected the response option "Other." Increased percentages were observed for each group photograph and provided validation of the control measures related to the digital modifications applied to the group photographs. Based upon the results of the second survey, the photographer was reemployed and the digitally-modified photographs were developed for use in the experimental treatment.

Selection and Validation of Music Listening Stimulus

McCrary (1990) suggested that factors such as historical periods, performers' sensitivity to stylistic interpretations, performers' use of vocal techniques associated with cultural traditions, subtle distinctions in vocal timbre, and cultural dialects may contribute to a listener's ability to accurately identify the racial or ethnic background of a performer as Black or White. McCrary further observed:

Within the art music tradition, the performer typically minimizes vocal stylings that characterize any ethnic or racial group influence. This standard of performance for art music can be found in performance by Black Americans and members of other ethnic groups (1990, p. 53).

When a vocal performance demonstrates strong influences of vocal styles associated with a specific vocal performance tradition, slight differences in vocal performance styles between Black and White singers may enable listeners' to identify the race of the performers (McCrary, 1990). Accordingly, factors influencing the listeners' ability to discern the race of the performer were considered in the selection of the music listening stimulus for the current study.

To establish validity for the selection of the choral music listening stimulus, two choral conducting doctoral students from a southeastern university school of music accredited by the National Association of Schools of Music evaluated eight audio-only choral listening examples that differed with regard to genre,

performance practices, and cultural or ethnic aural cues and were performed by Black and White high school choral groups (see Table 3).

Table 3
Choral Conducting Doctoral Students' Perception of Choral Groups' Racial Identity in Listening Examples

Listening Example	Publisher	Evaluator 1	Evaluator 2
<i>Let the Whole World Stand in Awe</i>	Theodore Presser	U	U
<i>Psalm 150</i>	Earthsongs	W	W
<i>Come Thou Fount of Every Blessing</i>	Oxford University Press	W	W
<i>A Red, Red Rose</i>	Alliance	B	B
<i>Gdy Sliczna</i>	Kopiowanie Oraz	B	W
<i>How Do I Love You</i>	(http://www.wisemanproject.com)	U	U
<i>Gloria</i>	Hildegard	B	U
<i>My Soul's Been Anchored in the Lord</i>	Hal Leonard	U	W

Note: B = Perceived Black
W = Perceived White
U = Unable to Determine

The following choral pieces comprised the listening examples: (a) *Let the Whole World Stand in Awe*, (b) *Psalm 150*, (c) *Come Thou Fount of Every*

Blessing, (d) *A Red, Red, Rose*, (e) *Gdy Sliczna Panna*, (f) *How Do I Love You*, (g) *Gloria*, and (h) *My Soul's Been Anchored in the Lord*. Two of the listening examples, *Let the Whole World Stand in Awe* and *How Do I Love You*, were included as control measures. In the two control listening examples, identifiable aural cues related to the performers' racial identity were not evident in the performance. *Let the Whole World Stand in Awe* was performed by the New Hanover County High School All-County Chorus in Wilmington, North Carolina (October 22, 2005) and conducted by D. Brett Nolker, Assistant Professor of Music Education at The University of North Carolina at Greensboro. *How Do I Love You* was performed by the West Genesee High School Chorale, St. Camillus, New York.

The evaluators provided written responses to indicate the extent to which they perceived the performers' racial identity as Black, White, or whether they were unable to determine the performers' racial identity. An analysis of the evaluators' ability to perceive the performers' racial identity revealed that only the two control listening examples, *Let the Whole World Stand in Awe* and *How Do I Love You*, received neutral responses with regard to listeners' ability to discern the performers' race.

The next phase in the selection and validation of the listening stimulus consisted of four listening examples that were evaluated by a choral director at a private college and a university choral director (see Table 4). The four examples chosen included the two examples perceived as neutral in terms of the

performers' perceived race by the doctoral choral conducting students and two additional listening examples.

Table 4
College/University Choral Conductors' Perception of Choral Groups' Racial Identity in Listening Examples

Listening Example	Publisher	Evaluator 1	Evaluator 2
<i>My Bonnie Lass She Smileth</i>	Hildegard	W	W
<i>Let the Whole World Stand in Awe</i>	Theodore Presser	U	U
<i>How Do I Love You</i>	(http://www.wisemanproject.com)	U	W
<i>Elijah Rock</i>	Hal Leonard	B	B

Note: B = Perceived Black
 W = Perceived White
 U = Unable to Determine

The two additional listening examples were a madrigal performed by a White high school choral group and a Negro spiritual performed by a Black high school choral group. The two additional examples were selected based on genre, performance practices and the presence of cultural or ethnic aural cues. The results of the second evaluation indicated that neither of the two evaluators was able to discern the performers' racial identity in the control listening example, *Let*

the Whole World Stand in Awe. One evaluator correctly identified the racial identity of the group performing *How Do I Love You* while the other evaluator was unable to determine the performers' racial identity in this control listening example. *Let the Whole World Stand in Awe* received the greatest number of neutral responses with regard to listeners' ability to determine the performers' race; therefore *Let the World Stand in Awe* was selected as the listening stimulus.

Modifications to the aural stimulus were necessary because the selected listening stimulus was a recorded performance of a choral group larger in size than were the groups in the photographs used for the current study. Consequently, *Sonic Foundry Sound Forge*® (Sony Media Software, 2001), a sound editing program, was used to filter the frequencies found to have the highest degree of reverberation in the original audio file. Various combinations of center frequencies and octave band reductions were applied to the listening stimulus using a four-band equalizer, and the results were previewed until the reverberation in the original audio file was reduced sufficiently for the listening stimulus to be perceived as being performed by a group approximate in size to those presented in the group photographs.

William P. Carroll, Director of Choral Activities and Chair of the Vocal Music Division at The University of North Carolina at Greensboro, was asked to evaluate the modified music listening stimulus to validate the effectiveness of the sound editing process. Carroll accurately identified the approximate size of the

All-County High School Chorus. According to Carroll's assessment of the alternate listening stimulus, *How Do I Love You*, the piece was performed by a choral group of 30 singers rather than a group of 19 as depicted in the experimental treatment photographs; however, Carroll suggested that *How Do I Love You* was more appropriate for use as the listening stimulus in the current study than *Let the World Stand in Awe* because the selection was perceived aurally to be performed by a group approximate in size to the 19-member group in each of the photographs.

Storage of Experimental Treatment Materials

Three blue, durable, hard-plastic portable desktop storage units (17 inches long; 11 inches wide; and 3 inches deep) contained the contents of treatment materials. The interior of the desktop storage units was modified with $\frac{1}{4}$ -inch wide metal chains that were measured and cut to 10 inches in length and attached with screws to each side of each storage unit to allow the cover, when lifted, to open to a point perpendicular to the horizontal plane of the storage unit.

Each of the three photographs depicting the racially homogeneous and racially heterogeneous choral groups was mounted onto the inside of the top cover of the desktop storage unit corresponding to the treatment group for which the photograph would be used. A stencil and metallic silver permanent marker were used to place identifying letters on the outside top cover of each desktop storage unit. The letters "A," "B," and "C" were used to indicate the desktop

storage units that contained material for Treatment Group A, Treatment Group B, and Control Group C.

The experimental treatment materials for the administration of one experimental procedure for each treatment group were stored inside each blue desktop storage unit and replaced after each experimental treatment. The desktop storage unit contents consisted of written directions for subjects in the study, two consent forms, two #2 pencils, two sheet-protected folders that contained hypothetical background information of the choral group, a choral performance evaluation form and a general choral perception form.

Experimental Procedure, Listening Equipment, and Experimental Controls

Equipment used to administer the music listening stimulus to subjects in each of the three treatment groups included a *Sony*® CD/DVD player, model DVP-NS50P, and a *Sony*® five-band equalizer with settings checked prior to each administration of the experimental treatment to control for consistency of audio output. Additional controls established for the stereo output of the audio-only recorded music listening stimulus included music listening equipment operated by the researcher with audio output settings predetermined and checked to ensure that the audio output settings were the same for the administration of all experimental treatments. Audio/stereo splitter cables with extension cables capable of connecting three headphones for music output from a distance of 20 feet were plugged into the receiver. Three stereo headphones obtained from the

music library at The University of North Carolina at Greensboro were tested for the audio quality of the music listening stimulus prior to the administration of the experimental treatment.

Data Collection Instruments and Procedures

Choral Evaluation Form

Permission was obtained to modify the *California Music Educators Association Bay Section Vocal Adjudication Form* (see Appendix D).

Modifications to this form included developing a seven-point semantic differential rating scale applied to each sound characteristic indicated in three evaluation categories described as “Quality of Sound,” “Musicality,” and “Technique.” The seven-point continuum was anchored at one end with the term “Low” and at the other end with the term “High.” To evaluate music performance components, subjects were directed to circle one of the 7 points on the continuum. An inter-rater reliability coefficient of .935 was reported for the choral evaluation form.

The *CMEA Bay Section Vocal Adjudication Form* was selected based upon a review of choral adjudication forms used by several professional music education organizations. The CMEA Bay Section provided details explaining how each performance area included on the form should be evaluated. Additionally, the organization continuously assesses its efforts to provide fair and accurate adjudication of choral music performance.

Racial-Encounter Measure

McCrary's (1990) *Racial-Encounter Measure* (see Appendix E) was constructed for Internet access using an online survey development web site (<http://www.surveymonkey.com>). The *Racial-Encounter Measure* was used in the current study to obtain posttreatment data to determine Black and White adjudicators' preferences for social encounters with persons of their own race and persons of a different race. The *Racial-Encounter Measure* consisted of three sub-scales: (a) responses to encounters with Blacks, (b) responses to encounters with Whites, and (c) responses to encounters with mixed-couples or mixed groups of Blacks and Whites (McCrary, 1990). McCrary reported an alpha coefficient of reliability of .95 for the Black Encounters sub-scale, .94 for the White Encounters sub-scale, and .91 for the Black and White Encounters sub-scale. The reported alpha reliability coefficient for the entire *Racial-Encounter Measure* was .91. These coefficients were considered acceptable for the purposes of the current research study.

Administration of the Experimental Treatment

To secure a site for the administration of the experimental treatment for the current study, approval was requested and obtained from the management of public library main branches in Greensboro, Winston-Salem, and Charlotte, North Carolina to use a meeting room in each branch. Additional approval was granted by Dr. Joel Reed (personal communication, February 3, 2007) to use a conference room and a choral classroom at Mars Hill College in Mars Hill, North

Carolina to administer the experimental treatment to randomly-selected subjects who were attending a choral clinic at the college during the period designated for conducting the experimental treatment.

The administration of the experimental treatment was scheduled over a period of six days beginning January 27, 2007. During each day of the administration of the experimental treatment, a Black or White sub-group of subjects was scheduled for a specific time. Ethnic social encounters may produce a physiological and psychological effect that may influence evaluators' responses (Kolk, 1978; Wright, & Little, 2002); therefore, controls to prevent such effects were considered. Two facilitators were recruited and trained by the researcher to interact with the subjects during the administration of the treatment: a White facilitator to administer the treatment to White subgroups, and a Black facilitator to administer the treatment to Black subgroups. Prior to the first administration of the treatment, circumstances prevented the White facilitator from participating and efforts to find another White facilitator were unsuccessful. As a consequence of this development, and to control for consistency in the administration of the experimental treatment the researcher decided not to use the Black facilitator. The researcher served as the facilitator for all administrations of the experimental treatment. Written directions detailing each aspect of the experimental procedure were provided to subjects to control for any physiological and psychological effects associated with any possible interaction between the researcher and subjects.

Three portable folding chairs and three indoor/outdoor folding tables (15 lbs., 24 inches by 48 inches) with a 1 ½-inch durable molded top were purchased and used to create three test administration stations (see Appendix F) which were used for the administration of the experimental treatment. Portable wall partitions (2 feet by 9 inches in width; 7 feet in height) were obtained from a local high school and covered in white fabric. The partitions were used to separate each of the three test administration stations and to control for any between-subjects observer effects during the experimental treatment. The research materials and equipment were arranged similarly on the table of each research station and included an IBM laptop *ThinkPad*® computer to gain wireless access to the sheet music for the listening stimulus (<http://www.wisemanproject.com>) and desktop storage units containing the research materials, and headphones for the listening.

Written directions for participation in the study were placed in the direct view of each subject and verbally identified by the researcher. Prior to administration of the experimental treatment, subjects received two copies of a Consent-to-Act-as-a-Human-Participant form required by the Office of Research Compliance at The University of North Carolina at Greensboro. The consent forms were placed on top of the desktop storage units. Subjects were asked to sign one copy of the form to indicate their informed consent to participate in the experimental treatment and posttreatment phases of the study. Subjects were instructed to keep the other copy of the consent form for their records.

The written directions instructed subjects to open the blue desktop storage unit. The contents of the unit contained one of three 8 x10-inch color photographs depicting a racially homogeneous choral group that might be perceived as White, a racially homogeneous choral group that might be perceived as Black, or a racially heterogeneous choral group that might be perceived as being comprised of Black and White members. The additional contents of the desktop storage unit, as outlined in the project directions included two #2 pencils; two sheet-protected folders of research materials labeled “RH” and “LH” to accommodate subjects that were right-handed or left-handed writers; background information of the choral group depicted in the photograph (with deception); a vocal adjudication sheet; and a general choral analysis form designed to determine subjects’ perception of the photographed groups’ racial identity based upon their responses to questions on the form.

Subjects were directed to read the background information of the choral group and review the directions on the vocal adjudication form located in the sheet-protected research materials. There were two sequential phases of the evaluation process that included subjects’ review of the music score and their evaluation of the choral performance. To review the music score for the music stimulus, subjects used the *down* arrow of the IBM *ThinkPad*® keyboard. When subjects completed the review of the music score, they placed the provided audio headphones over their ears. This signaled to the researcher that subjects were ready to hear the performance and conduct their evaluation. After completing

their evaluation, subjects returned all research materials and the signed copy of the consent form to the desktop storage unit and closed the unit.

Posttreatment Procedures

Prior to their departure from the test site, subjects were provided instructions for accessing the online *Racial-Encounter Measure* and requested to complete the survey at their earliest convenience. After completing the online *Racial Encounter Measurement*, each subject was presented with a debriefing statement (see Appendix G) describing the nature of the deception in the study, the true purpose of the study, and which explained the necessity for deception.

Data Analyses and Reporting of Results

Version 14.0 of the *Statistical Package for the Social Sciences* (SPSS, 2005) for the Microsoft *Windows 2000/XP*® computer operating system was used to conduct all analyses for the current study. Preliminary descriptive analyses were conducted to determine mean preference scores and standard deviations across race for the two experimental treatment groups and the control group. To test the three null hypotheses established for the current investigation, subjects' choral performance rating scores (the dependent variable) were grouped across two independent variables (race and treatment) and were analyzed using a two-way analysis of variance (ANOVA) for three levels of the treatment variable, and two levels of the race variable. A Pearson Product-Moment correlation analysis was conducted to address the research question

involving the potential relationship between adjudicators' choral performance rating scores and their racial encounter preference scores.

An alpha level of .05 was established for all tests of statistical significance. Statistical results were interpreted and reported with tables containing results of descriptive analyses, ANOVA results and the results of the correlation analyses.

CHAPTER IV

ANALYSES AND RESULTS

Introduction

The purpose of this study was to investigate the effect of adjudicators' race and racial perception on their ratings of choral performances attributed to homogeneous Black, homogeneous White, and heterogeneous Black and White groups. A secondary research objective included an examination of the magnitude of relationship between adjudicators' choral performance ratings and their self-reported ethnic social encounter preferences.

Subjects were twenty-six choral music educators from five counties in North Carolina. Fifteen were Black and 11 were White; seven subjects were male and 19 were female; four subjects taught in middle school, 18 in high school, and four taught at the university level. Subjects were randomly selected from among respondents completing an online pretreatment survey used to determine respondents' eligibility to participate in the study based on criteria used by the Choral Section of the North Carolina Music Educators Association (NCMEA) to select choral adjudicators for NCMEA regional choral event.

The subjects were assigned to one of two experimental treatment groups or a control group based upon their self-reported racial identification. Each

treatment group and the control group were presented with the same music listening stimulus; however, Treatment Group A was presented with a photograph depicting a racially homogeneous choral group whose members might be perceived as Black, Treatment Group B was presented with a photograph depicting a racially homogeneous choral group whose members might be perceived as White, and Control Group C was presented with a photograph that depicted a racially heterogeneous choral group whose members might be perceived as Black and White.

Two surveys of high school teachers were conducted to validate the perceived racial identification of the groups depicted in the three photographs. The results of the first survey indicated a need for digital imaging modifications in order that the photographed groups' racial identification would be perceived by subjects as intended. Analysis of results from the second survey indicated higher percentages related to survey participants' accurate perception of the intended race of groups depicted as homogeneous Black, homogeneous White and heterogeneous Black and White choral groups in the three photographs.

To validate the choral music listening stimulus, two surveys were conducted. Two choral conducting doctoral students from The University of North Carolina at Greensboro served as evaluators in the first survey. A choir director at Bennett College for Women, and the director of the University Chorale at The North Carolina Agricultural and Technical State University in Greensboro, North Carolina served as evaluators in the second survey. In both surveys, evaluators

provided written responses to evaluate choral listening examples performed by homogeneous Black or White high school choral groups. The listening examples differed in the extent to which they each evidenced factors identified by McCrary (1990) as contributing to a listeners' ability to accurately discern performers' race such as historical periods, performers' sensitivity to stylistic interpretations, performers' use of vocal performance techniques associated with cultural traditions, subtle distinctions in vocal timbre, and cultural dialects.

Two additional listening examples were included as control measures based on the researcher's determination that they exhibited few or none of the aural cues identified by McCrary. Analysis of the evaluators' reported perception of the choral groups' racial identity revealed that one of the control listening examples, *Let the Whole World Stand in Awe* received the most neutral responses and the second control listening example, *How Do I Love You*, received the second highest number of neutral responses; however, *Let the Whole World Stand in Awe* was a recorded performance of a choral group larger in size than were the 19-member groups depicted in the photographs used for the current study.

The sound in the audio file of the selected listening stimulus, *Let the Whole World Stand in Awe*, was edited to reduce reverberation sufficiently to allow the stimulus to be perceived as being performed by a choral group approximate in size to the 19-member choral groups presented in the three photographs. Assessment of the effectiveness of the sound editing modifications

revealed that the alternate listening stimulus, *How Do I Love You*, performed by a choral group closer in size to the groups in the photographs, would be appropriate for use as the listening stimulus with no modifications required.

During the experimental treatment phase of the current study, subjects were led to believe that the group photograph provided in the desktop storage unit of experimental treatment materials was the source of the evaluated audio-only recorded choral performance listening stimulus and were provided a hypothetical background summary for the choral group pictured. In point of fact, groups in the photographs consisted of volunteers solicited by the researcher and did not provide the listening stimulus. A posttreatment *Racial-Encounter Measure* (McCrary, 1990) completed by subjects excluded descriptive information related to the examination of Black and White adjudicators' preferences for social encounters with persons of their own race and persons of a different race.

Researchers have suggested that factors related to performers' external characteristics, adjudicators' expectation, music preferences, and the evaluation process may influence adjudicators' ratings of music performance (Birmingham, 2000; Elliott, 1995; McCrary, 1993). The deception evidenced in the experimental treatment and posttreatment phases of the current study was necessary to limit biases that might decrease the viability of data obtained to address the established research objectives.

One of three research stations, divided by partitions, was designated for each of the two experimental treatment groups and the control group. Each research station included one table on which was placed a desktop storage unit containing research materials, headphone, and a photograph depicting either a homogeneous Black choral group for Treatment Group A, a homogeneous White choral group for Treatment Group B or a heterogeneous choral group of Black and White members for Control Group C.

The procedure for the choral evaluation consisted of two sequential phases. In the first phase, subjects were asked to review the music score without listening to the music stimulus. When subjects completed their review of the music score, a modified *California Music Educators Association Bay Section Vocal Adjudication Form* was used to evaluate an audio-only recorded choral performance using headphones provided at each research station.

Prior to departure from the test site, subjects were provided verbal and written instructions on how to access the *Racial-Encounter Measure* constructed by the researcher for Internet access using an online survey development web site (<http://www.surveymonkey.com>). The *Racial-Encounter Measure* was used to obtain data regarding subjects' expressed preferences for social encounters with persons of their own race and persons of a different race as indicated by their responses to items in three sub-scales focusing on: (a) encounters with Blacks, (b) encounters with Whites, and (c) encounters with mixed-couples or mixed groups of Blacks and Whites (McCrary, 1990). Two White female subjects

from Treatment Group B and one Black male and one White female subject from Control Group C did not complete the posttreatment survey, requiring their data to be omitted from analyses. Consequently, statistical analyses were performed on data provided by the 26 remaining subjects.

Statistical treatments of data were completed using version 14.0 of the *Statistical Package for the Social Sciences* base module (SPSS, 2005) for the *Windows 2000/XP*® computer operating system. An alpha level of .05 was established for all inferential analyses.

Choral Performance Evaluation Instrument

Based upon a review of choral adjudication forms used by several professional music education organizations, the *California Music Educators Association Bay Section Vocal Adjudication Form* was selected for adaptation by the researcher to use as the choral evaluation instrument for the current study. The original format of the instrument consisted of a scoring system totaling 100 points: three 30-point evaluation categories that included “Quality of Sound,” “Musicality,” “Technique” and a 10-point evaluation category for “Other Factors.” In each of the four categories, specific evaluation criteria were listed. The calculation of total scores in each of the four evaluation categories provided a total rating score used to establish a performing groups’ overall descriptive rating. Performances rated 90 to 100 points were “Superior,” performance ratings of 80 to 89 points were “Excellent,” performance ratings of 70 to 79 points were “Good,” performance ratings of 60 to 69 points were “Fair,” and performance

ratings of 0 to 59 points were “Needs Improvement.” A supplement to the *California Music Educators Association Bay Section Vocal Adjudication Form* outlined the performance criteria for each level of performance represented by the overall choral performance ratings.

The current researchers’ adaptation of the choral evaluation instrument involved eliminating the “Other Factors” category, which included a possible 10-point total for performing groups’ attentiveness and appearance. The “Other Factors” category was considered by the researcher to be relevant to a live choral performance, rather than the audio-only recorded performance used in the current study. The modified instrument listed each aspect of the evaluation criteria in the three remaining categories that assessed “Quality of Sound,” “Musicality,” and “Technique.”

To obtain data that would provide a score specific to subjects’ perception of each evaluative item related to the listening stimulus, the instrument was adapted to use a seven-point semantic differential scale for each item, rather than an overall maximum score of 30 points for each category assessed. In comparison to a five-point scale, a seven-point scale increases the number of choice options between the scale’s two extreme outer points and mid-point. Cooksey (1983) provided a rationale for converting the choral performance evaluation instrument to a Likert-type scale, suggesting that such scales are structured to build in levels of sensitivity and differentiation of responses. Cohen

(2003) described the semantic differential rating scale as a variation of the Likert scale, as contrasting terms anchor each end of a continuum. Table 5 lists the evaluation items in each category of the adapted California Music Educators Association Bay Section Vocal Adjudication Form.

Table 5
Evaluation Category Components of the Adapted California Music Educators Association Bay Section Vocal Adjudication Form

Quality of Sound	Technique	Musicality
Intonation	Interpretation	Rhythm
Vowel Uniformity	Style	Diction
Blend	Phrasing	Articulation
Balance	Expression	Precision
Tone Quality	Sensitivity	
	Dynamics	

The seven-point semantic differential scale was anchored with the contrasting terms “Low” and “High.” In evaluating the performance, subjects were directed to circle one of the seven points on the continuum.

Preliminary Descriptive Analysis

The choral evaluation form used by subjects in Treatment Groups A and B, and Control Group C provided data for 14 choral performance components reflecting subjects' ratings attributed to a choral performance by groups they attributed to homogeneous Black, homogeneous White or heterogeneous Black and White groups. Preliminary descriptive analyses of the choral evaluation data were conducted to obtain and compare evaluation mean scores and standard deviations among the two treatment groups and the control group across choral performance evaluation components. Mean choral evaluation scores and standard deviations are presented in Table 6.

Mean scores for Treatment Group A ($n = 10$) obtained for each of the 14 choral performance evaluations components ranged from 5.80 points to 6.70 points with standard deviations of .63 and .43 points, respectively. Mean scores for subjects in Treatment Group B ($n = 8$) ranged from 4.25 points to 5.63 points, with respective standard deviations of 1.75 and 1.19 points. Subjects' mean scores in Control Group C ($n = 8$) ranged from 5.00 points to 6.63 points, with standard deviations of 1.07 and .74 points, respectively.

An examination of the total groups' mean scores for each of the 14 choral performance evaluation components revealed a range from 5.15 points, with a standard deviation of 1.32 points to a mean of 6.08 points and a standard deviation of 1.32 points. The lowest mean score observed among groups was the mean score of 4.25 points and a standard deviation of 1.75 points for

experimental treatment Group B. The highest mean score difference observed among groups was a score of 6.70 points for experimental treatment Group A.

Table 6
Mean Scores and Standard Deviations for Choral Performance Evaluation Components across Treatment Groups

Component	<u>Group A</u>		<u>Group B</u>		<u>Group C</u>		<u>Total Groups</u>	
	<i>n</i> = 10 Mean	SD	<i>n</i> = 8 Mean	SD	<i>n</i> = 8 Mean	SD	<i>N</i> = 26 Mean	SD
Intonation	5.80	.63	5.63	1.19	6.13	.84	5.85	.88
Vowel Uniformity	6.10	.57	4.63	1.69	5.38	1.06	5.42	1.27
Blend	5.90	.88	4.88	1.36	5.75	1.17	5.54	1.17
Balance	6.00	1.16	4.88	1.36	5.00	1.07	5.35	1.26
Tone Quality	6.20	.79	4.75	1.67	5.88	.99	5.65	1.29
Interpretation	6.50	.71	5.13	.84	6.00	1.31	5.92	1.09
Style	6.40	.70	5.13	1.13	6.38	.74	6.00	1.02
Phrasing	6.60	.52	5.50	.93	6.00	.76	6.08	.85
Expression	6.40	.70	5.25	1.16	6.25	.89	6.00	1.02
Sensitivity	6.40	.97	5.13	.99	5.75	1.28	5.81	1.17
Dynamics	6.10	.88	5.38	1.19	5.63	1.77	5.73	1.28
Rhythm	6.70	.43	5.50	1.31	6.63	.74	6.31	1.01
Diction	6.00	.87	4.25	1.98	5.38	.74	5.27	1.43
Articulation	5.80	.92	4.25	1.75	5.25	.71	5.15	1.32
Precision	6.10	1.10	4.88	1.25	5.75	1.28	5.62	1.27

Note: Group A = Performance attributed to a homogeneous Black choral group
 Group B = Performance attributed to a homogeneous White choral group
 Group C = Performance attributed to a heterogeneous Black and White choral group

Comparison of mean difference scores revealed that the lowest mean score in experimental Group B was .75 points below the lowest mean score in control Group C, and 1.55 points below the lowest mean score in experimental Group A. The results of group mean scores and standard deviations calculated across Treatment Groups A and B, and Control Group C are presented in Table 7.

Table 7
Mean Scores and Standard Deviations for Overall Choral Performance Evaluations across Treatment Groups

Treatment	<i>n</i>	<i>SD</i>	Mean
Group A	10	.53	6.20
Group B	8	.75	5.01
Group C	8	.84	5.80

Examination of group mean scores for Group A revealed a mean of 6.20 points, and a standard deviation of .53 points. The mean for Group B was 5.01 points, with a standard deviation of .75 points. The mean score obtained for Group C was 5.80 points, with a standard deviation of .84 points. The total mean score across treatment groups was 5.71 points, with a standard deviation of .84 points.

Examination of the mean scores for the treatment groups' choral performance evaluations revealed the highest mean difference was 1.19 points,

observed for Treatment Groups A and B, the second highest mean score difference was .79 points observed for Treatment Group B and Control Group C, and the smallest difference was .4 points observed for the mean scores of Treatment Group A and Control Group C.

A comparative analysis was conducted to examine differences in mean scores for each of the 14 choral performance components evaluated across race and treatment groups (see Table 8). The results revealed the lowest mean score across treatment groups was 3.80 points observed for Black subjects in experimental Treatment Group B who evaluated a performance attributed to a homogeneous White choral group. The highest mean score observed for Black subjects across groups was 6.75 points in Control Group C.

An examination of the lowest mean score for White subjects across treatment groups revealed a mean score of 4.00 points in Treatment Group B, and the highest mean score across treatment groups was 7.00 points observed for one White subject in experimental Treatment Group B. The difference between the lowest and highest mean score across groups was 3.2 points.

In Treatment Group A, the highest and lowest mean scores for Black subjects were 6.67 point and 5.33 points, respectively. A review of choral performance mean scores for White subjects in Treatment Group A revealed a minimum mean score of 6.00 points and maximum mean score of 7.00 points.

Table 8
Mean Scores for Choral Performance Evaluation Components across Race and Treatment Groups

Component	<u>Group A</u>		<u>Group B</u>		<u>Group C</u>		<u>Total Groups</u>	
	<i>n</i> = 10 Means		<i>n</i> = 8 Means		<i>n</i> = 8 Means		<i>N</i> = 26 Means	
	Black	White	Black	White	Black	White	Black	White
Intonation	5.67	6.00	5.60	5.67	6.00	6.25	5.73	6.00
Vowel Uniformity	6.17	6.00	4.00	5.57	5.50	5.25	5.27	5.64
Blend	5.83	6.00	4.40	5.67	5.50	6.00	5.27	5.91
Balance	5.33	7.00	5.20	4.33	5.25	4.75	5.27	5.45
Tone Quality	6.00	6.50	4.40	5.33	5.50	6.25	5.33	6.09
Interpretation	6.33	6.75	5.40	4.67	6.00	6.00	5.93	5.91
Style	6.17	6.75	4.80	5.67	6.25	6.50	5.73	6.36
Phrasing	6.67	6.50	5.60	5.33	6.00	6.00	6.13	6.00
Expression	6.50	6.25	5.00	5.67	6.25	6.25	5.93	6.09
Sensitivity	6.33	6.50	5.20	5.00	5.50	6.00	5.73	5.91
Dynamics	6.17	6.00	5.60	5.00	5.50	5.75	5.80	5.64
Rhythm	6.50	7.00	6.00	4.67	6.75	6.50	6.40	6.18
Diction	6.00	6.00	3.80	5.00	5.25	5.50	5.07	5.55
Articulation	5.67	6.00	4.00	4.67	5.00	5.50	4.93	5.45
Precision	5.67	6.75	5.40	4.00	5.75	5.75	5.60	5.64

Note: Group A = Performance attributed to a homogeneous Black choral group
 Group B = Performance attributed to a homogeneous White choral group
 Group C = Performance attributed to a heterogeneous Black and White choral group

A difference of 1.34 points was observed for the highest and lowest choral performance mean scores for Black subjects and a mean score difference of 1.00 point was observed for White subjects.

A comparison of mean scores for Black subjects in Treatment Group B revealed a minimum mean score of 3.80 points and a maximum mean score of 6.00 points. These also were the minimum and maximum mean scores across racial groups in Group B. An examination of mean scores for White subjects in Treatment Group B revealed a minimum mean score of 4.00 points and a maximum mean score of 5.67 points, resulting in a mean score difference of 2.2 points. The minimum and maximum mean scores for Black subjects in Treatment Group B resulted in a mean score difference of 2.20 points and a mean score difference of 1.67 points for White subjects.

A comparison of mean scores for Control Group C revealed a minimum mean score of 5.00 points for Black subjects; Black subjects' highest mean score was 6.75 points. A minimum mean score of 4.75 points and a maximum mean score of 6.50 points were observed for White subjects in Control Group C. The difference in mean scores for Black subjects in Control Group C was 1.77 points and for White subjects in Control Group C, the difference in mean scores was 1.75 points.

An examination of the range of mean scores across treatment groups for Black subjects revealed a minimum mean score of 4.93 points and a maximum mean score of 6.40 points. The total mean scores for White subjects across

treatment groups ranged from a minimum mean score of 5.45 points to a maximum mean score of 6.36 points. A comparison of all subjects' total mean scores for choral performance evaluation components across treatment groups revealed a minimum mean score of 4.94 points and a maximum mean score of 6.40 points, both of which were observed for Black subjects..

Mean scores and standard deviations for choral performance evaluation across racial groups are presented in Table 9.

Table 9
Means Scores and Standard Deviations for Choral Performance Evaluation across Racial Groups

Subject Description	<u>Group A</u> <i>n</i> = 10		<u>Group B</u> <i>n</i> = 8		<u>Group C</u> <i>n</i> = 8	
	Mean	SD	Mean	SD	Mean	SD
Self-Reported Black	6.06	.61	4.96	.57	5.73	.96
Self-Reported White	6.40	.36	5.08	1.14	5.88	.82

An examination of these scores revealed mean scores for Black subjects ranging from 4.96 points, with a standard deviation of .57 points, to a mean score of 6.06 points, with a standard deviation of .61 points. Mean scores for White subjects ranged from 5.08 points, with a standard deviation of 1.14 points, to a mean score of 6.40 points, with a standard deviation of .36 points. The lowest mean score observed between racial groups was 4.96 points observed for one

Black subject. The maximum mean score of 6.40 points was observed for one White subject.

Analysis of Variance

Following the descriptive analyses, subjects' choral evaluation ratings were grouped across the two independent variables (treatment and race) for inferential analyses using a 2 x 3 analysis of variance (ANOVA) to test the null hypotheses that there would be no main effect of race, no main effect of treatment, and no interaction effect of race and treatment on choral evaluation mean scores. An alpha level of .05 was established for the analysis. Table 10 presents the results of the ANOVA analysis.

Table 10
2 x 3 Analysis of Variance of Choral Performance Evaluation Scores for Treatment and Race

Source		<i>df</i>	Sum of Squares	Mean Square	<i>F</i>	<i>p</i>
Main Effects						
Treatment	(A)	2	6.21	3.11	5.62	.01*
Race	(B)	1	.26	.26	.47	.50
Interactions						
A x B		2	.06	.03	.05	.95
Error		20	11.06	.55		

* $p \leq .05$

The results revealed a significant main effect ($F[2, 20] = 5.62, p = .01$) of treatment on the choral performance evaluation scores. To examine the source of the significant main effect of treatment on the mean choral evaluation scores across treatment groups, a post hoc analysis was conducted using the Tukey HDS multiple comparison procedure.

The results of the post hoc analysis revealed a significant difference ($p = .004$) between the mean choral performance evaluation scores of Treatment Group A, the group that evaluated a performance attributed to a homogeneous Black choral group and Treatment Group B, the group that evaluated a performance attributed to a homogeneous White choral group. The mean choral performance evaluation score of 6.20 points for Treatment Group A was 1.19 points higher than was the mean score of 5.01 points for Treatment Group B. Based on these results, the null hypothesis regarding the main effect of adjudicators' racial perception on their ratings of choral performances attributed to homogeneous Black, homogeneous White and heterogeneous Black and White groups was rejected.

Results of the ANOVA analysis revealed no significant main effect ($F[1, 20] = .47, p = .50$) of race on mean choral performance evaluation scores. Consequently, the null hypothesis regarding the main effect of adjudicators' self-reported racial identification on their ratings of choral performances attributed to homogeneous Black, homogeneous White and heterogeneous Black and White groups was retained.

No significant two-way interaction effect ($F[2, 20] = .05, p = .95$) was found for race and treatment based on the ANOVA analysis. Therefore, the null hypothesis regarding the interaction effect of adjudicator's self-reported racial identification and adjudicators' racial perception on their ratings of choral performances attributed to homogeneous Black, homogeneous White and heterogeneous Black and White groups was retained.

Correlation Analyses

A secondary research objective involved examining the magnitude of relationship between adjudicators' ethnic social encounter preferences and their ratings of choral performances attributed to homogeneous Black, homogeneous White and heterogeneous Black and White groups. The Pearson Product-Moment correlation procedure was used to investigate the magnitude of relationship between the *Racial-Encounter Measure* subscale means and mean scores of the choral performance evaluation. Table 11 presents results of the correlation analysis for Treatment Group A.

Subjects in Treatment Group A provided choral performance evaluation ratings attributed to a homogeneous Black choral group. Therefore, the analysis of primary interest for Treatment Group A was the correlation between the choral performance evaluation mean scores and the mean scores for the Black Encounters subscale of the *Racial-Encounter Measure*.

Table 11
*Correlations for Racial Encounter Subscale Means and Choral Rating Means
 across Race for Treatment Group A*

Variables	BCR	WBE	BBE	WWE	BWE	WB/WE	BB/WE
WCR	.84	-.20	-.87	-.66	-.39	.66	-.55
BCR	_____	-.75	-.52	-.73	.17	-.28	-.53
WBE		_____	.96*	.66	.47	.46	.68
BBE			_____	.96*	.65	.84	.69
WWE				_____	.49	-.29	.68
BWE					_____	.42	.00
WB/WE						_____	.89

* $p < .05$

Note WCR = (White Subjects) Choral Rating
 BCR = (Black Subjects) Choral Rating
 WBE = (White Subjects) Black Encounters Subscale
 BBE = (Black Subjects) Black Encounters Subscale
 WWE = (White Subjects) White Encounters Subscale
 BWE = (Black Subjects) White Encounters Subscale
 WB/WE = (White Subjects) Black/White Encounters Subscale
 BB/WE = (Black Subjects) Black/White Encounters Subscale

The relationship between Black subjects' mean choral performance evaluation score and their Black Encounters subscale mean score was moderate and negative ($r = -.52$, $p = .434$); the correlation for White subjects in the same group was low and negative ($r = -.20$, $p = .710$). The correlation coefficient for the choral performance evaluation mean score and the White Encounters subscale mean score for White subjects in Treatment Group A was moderate and negative

($r = -.66$, $p = .154$) and the correlation coefficient for the choral performance mean score and White Encounters subscale mean score for Black subjects in Treatment Group A was low and positive ($r = .17$, $p = .833$).

For White subjects in Treatment Group A, the correlation coefficient for the Black and White Encounters subscale mean score and the choral performance evaluation mean score indicated a moderate, positive relationship ($r = .66$, $p = .154$) and a moderate, negative relationship for Black subjects ($r = .53$, $p = .473$).

Subjects in Treatment Group B evaluated a choral performance attributed to a homogeneous White choral group (see Table 12).

Table 12
Correlations for Racial Encounter Subscale Means and Choral Rating Means across Race for Treatment Group B

Variables	BCR	WBE	BBE	WWE	BWE	WB/WE	BB/WE
WCR	.99	-.53	-.92	-.15	-.69	-.52	-1.00*
BCR	_____	-.95	-.97	1.00*	-.79	.62	-.95
WBE		_____	.98*	-.46	.95	-.65	.87
BBE			_____	-.95	.92	-.80	.90
WWE				_____	-.76	-.30	-.99
BWE					_____	-.97	.66
WB/WE						_____	-.45

$p < .05$

Note WCR = (White Subjects) Choral Rating
 BCR = (Black Subjects) Choral Rating
 WBE = (White Subjects) Black Encounters Subscale
 BBE = (Black Subjects) Black Encounters Subscale
 WWE = (White Subjects) White Encounters Subscale
 BWE = (Black Subjects) White Encounters Subscale
 WB/WE = (White Subjects) Black/White Encounters Subscale
 BB/WE = (Black Subjects) Black/White Encounters Subscale

For Treatment Group B, the correlation analysis of primary interest was between the choral performance evaluation mean score and the mean score for the White Encounters subscale of the *Racial-Encounter Measure*. The results revealed a low, negative correlation ($r = -.15$, $p = .816$) for the White Encounters subscale mean score and the choral performance evaluation mean score for White subjects in Treatment Group B. A moderate, negative correlation ($r = -.79$, $p = .419$) was observed between the White Encounters subscale mean score and the choral performance evaluation mean score for Black subjects in the group. Analysis of the correlation between the choral performance mean score and the Black Encounters subscale mean score for subjects in Treatment Group B indicated a high, negative correlation for White subjects ($r = -.92$, $p = .361$) and a high, negative correlation for Black subjects ($r = -.97$, $p = .419$).

The correlation analysis of the Black and White Encounters subscale mean score and the choral performance evaluation mean score for White subjects revealed a moderate, negative relationship ($r = -.52$, $p = .361$); a high, negative correlation was found for Black subjects ($r = -.95$, $p = .20$).

The choral performance evaluation ratings for Control Group C were attributed to a heterogeneous Black and White choral group (see Table 13). Thus, the correlation analysis of primary interest examined relationships between the choral performance evaluation mean score and the mean score for the Black and White Encounters subscale of the *Racial-Encounter Measure*.

Table 13
*Correlations for Racial-Encounter Subscale Means and Choral Rating Means
 across Race for Control Group C*

Variables	BCR	WBE	BBE	WWE	BWE	WB/WE	BB/WE
WCR	.93	-.26	.88	.36	-.26	.57	.19
BCR	_____	-.50	.99**	.17	.66	.66	.54
WBE		_____	-.56	.77	-.86	-.89	-.66
BBE			_____	.11	.74	.66	.64
WWE				_____	-.44	-.57	-.27
BWE					_____	.67	.94
WB/WE						_____	.37

** $p < .01$.

Note WCR = (White Subjects) Choral Rating
 BCR = (Black Subjects) Choral Rating
 WBE = (White Subjects) Black Encounters Subscale
 BBE = (Black Subjects) Black Encounters Subscale
 WWE = (White Subjects) White Encounters Subscale
 BWE = (Black Subjects) White Encounters Subscale
 WB/WE = (White Subjects) Black/White Encounters Subscale
 BB/WE = (Black Subjects) Black/White Encounters Subscale

The relationship between the Black and White Encounters subscale mean score and the choral performance evaluation mean score was moderate and positive for both Black ($r = .54$, $p = .457$) and White ($r = .57$, $p = .557$) subjects. The relationship between the Black Encounters subscale mean score and the choral performance evaluation mean score for White subjects was weak and positive ($r = .36$, $p = .643$); a significant strong, positive relationship was observed between the choral performance mean score and the Black Encounters subscale mean score for Black subjects ($r = .99$, $p = .007$) in the Control Group. The relationship between the mean score for the White Encounters subscale and

the choral performance evaluation mean score for White subjects was weak and positive ($r = .36$, $p = .643$). A moderate, positive relationship was observed for the White Encounters subscale mean score and the choral performance evaluation mean score for Black subjects ($r = .66$, $p = .337$).

Summary

Results of the analyses of the effect of race and racial perception on adjudicators' ratings of choral performances attributed to homogeneous Black, homogeneous White, and heterogeneous Black and White groups may be summarized as follows:

1. There was a significant main effect of adjudicators' racial perception on their ratings of choral performances attributed to homogeneous Black, homogeneous White, and heterogeneous Black and White groups.
2. There was not significant main effect of adjudicators' self-reported racial identification on their ratings of choral performances attributed to homogeneous Black, homogeneous White, and heterogeneous Black and White groups.
3. There was no significant interaction effect of adjudicators' self-reported racial identification and adjudicators' racial perception on their ratings of choral performances attributed to homogeneous Black, homogeneous White, and heterogeneous Black and White groups.
4. Correlations between the choral performance evaluation mean scores and the mean scores of the relevant *Racial-Encounter Measure* subscale were moderate and negative for Treatment Groups A and B. The only positive correlations observed between the choral performance evaluation mean score and the relevant subscale was for Control Group C, with a moderate positive correlation coefficient for White subjects and a high, positive, significant correlation for Black subjects.

Among the independent variables, adjudicator's racial perception emerged as a significant influence on subjects choral evaluation ratings. In addition, with the exception of Control Group C, there were no significant positive correlations between subjects' choral performance rating score and their preferences for encounters with persons of the same race as members of the choral group being evaluated. For Control Group C, a positive correlation was observed for subjects' choral performance evaluation mean and the mean of the Black and White Encounters subscale.

CHAPTER V

SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS FOR FUTURE RESEARCH

Summary

The purpose of this study was to investigate the effect of adjudicators' race and racial perception on their ratings of choral performances attributed to racially homogeneous (Black or White) and racially heterogeneous (Black and White) groups. The sample consisted of middle school, high school, and university level choral music educators ($N = 26$). Subjects were assigned randomly to one of two experimental treatment groups (Group A and Group B) or a control group (Group C) to listen to and provide a choral performance evaluation of the same choral performance listening stimulus; however, Group A, B, and C, were each presented with a photograph designed to be perceived as a homogeneous Black, homogeneous White, or heterogeneous Black and White choral group.

Three null hypotheses were tested.

1. There is no significant main effect of adjudicators' racial perception on their ratings of choral performances attributed to homogeneous Black, homogeneous White and heterogeneous Black and White groups.

2. There is no significant main effect of adjudicators' self-reported racial identification on their ratings of choral performance attributed to homogeneous Black, homogeneous White and heterogeneous Black and White groups.
3. There is no significant interaction effect of adjudicators' self-reported racial identification and adjudicators' racial perception on their ratings of choral performances attributed to homogeneous Black, homogeneous White and heterogeneous Black and White groups

A secondary research objective involved examining potential relationships between adjudicators' ethnic social encounter preferences and their ratings of choral performances attributed to groups perceived to be racially homogeneous and racially heterogeneous. An alpha level of .05 was established to test all null hypotheses and for analyses conducted to investigate the secondary research objective.

Subject Selection

The researcher created an eight-item, multiple choice, pretreatment survey using an online survey development web site (<http://www.surveymonkey>) and sent a letter of invitation by electronic mail to 135 choral music educators in selected counties in North Carolina. The survey responses were used to obtain information specific to respondents' gender, primary area of teaching responsibilities, years of teaching experience, highest educational level completed, current or previous membership in the North Carolina Music Educators Association (NCMEA), and self-identified racial or ethnic background. This information was used to determine respondents' eligibility to participate as

subjects in the current study based upon NCMEA criteria for selecting choral adjudicators for NCMEA-sponsored regional choral events.

Treatment Procedures

The administration of the experimental treatment was scheduled for six days over a two-week period beginning January 27, 2007. According to Kolk (1978) and Wright and Little (2002), ethnic social encounters may produce a physiological and psychological effect influencing evaluators' responses. To control for any physiological and psychological effects associated with encounters between the researcher and subjects and between groups of subjects, a different day and time was scheduled for each Black or White subgroup for participation in the experimental treatment..

Three test administration stations were constructed for the administration of the experimental treatment. The research materials and equipment were arranged similarly on a table placed in each test administration station and included an IBM *ThinkPad*® laptop computer to gain wireless access to the music score of the listening stimulus, a desktop storage unit containing the research materials, and a set of headphones through which the listening stimulus was transmitted.

The directions for participation in the study were placed in direct view of each subject and verbally identified by the researcher. The written directions instructed each subject to open the blue desktop storage unit. One of the three photographs depicting high school choral groups that could be perceived as

homogenously Black, homogeneously White and heterogeneously Black and White was mounted onto the inside of the top cover of the desktop storage unit corresponding to the treatment group for which the photograph would be used. As outlined in the project directions, the additional contents of the desktop storage unit included two #2 pencils; two sheet-protected folders of research materials labeled “RH” and “LH” to accommodate subjects who were right-handed or left-handed writers; hypothetical background information relating to the choral group depicted in the photograph, vocal adjudication sheet, and a form designed to determine subjects’ perception of the photographed groups’ racial identity based upon their responses to questions on the form.

Subjects were directed to read the background information relating to the choral group and to review the directions on the vocal adjudication form located in the sheet-protected research materials. There were two sequential phases of the evaluation process that included subjects’ review of the music score and their evaluation of the choral performance. To review the music score for the music stimulus, subjects used the *down* arrow of the IBM *ThinkPad*® keyboard. When subjects completed the review of the music score, they placed the provided audio headphones over their ears. This signaled to the researcher that subjects were ready to hear the performance and conduct their evaluation.

Equipment used to administer the music listening stimulus to subjects in each of the three treatment groups included a Sony CD/DVD player (model, DVP-NS50P) and a Sony five-band equalizer with settings checked prior to each

administration of the experimental treatment to control for consistency of audio output. After completing their evaluation, subjects returned all research materials and a signed copy of the consent form to the desktop storage unit.

Posttreatment Procedure

Prior to their departure from the test site, subjects were provided instructions for accessing McCrary's (1990) *Racial-Encounter Measure*, which was constructed for Internet access using an online survey development web site (<http://www.surveymonkey.com>). The *Racial-Encounter Measure* was used to obtain data to determine Black and White adjudicators' preferences for social encounters with persons of their own race and persons of a different race.

The *Racial-Encounter Measure* consisted of three sub-scales designed to assess: (a) preference for encounters with Blacks, (b) preference for encounters with Whites, and (c) preference for encounters with mixed Black and White couples or mixed groups of Blacks and Whites (McCrary, 1990). After completing the online *Racial-Encounter Measure*, subjects were presented with a debriefing statement, which explained the nature of the deception, the true purpose of the study and described the necessity for the deception.

Descriptive analyses were conducted to examine mean scores for subjects' choral performance evaluations across treatment groups and race. To test the three null hypotheses, subjects' choral performance evaluation mean scores were grouped across race and treatment and analyzed via a 2 x 3 analysis of variance (ANOVA) for 3 levels of the treatment variable, and 2 levels

of the race variable. Additional analyses were conducted using the Tukey HSD *post hoc* multiple comparison procedure. A Pearson Product-Moment correlation analysis was conducted to examine the secondary research objective regarding potential relationships between adjudicators' choral performance evaluation rating mean scores and scores on the three subscales of the *Racial-Encounter Measure*.

Discussion of Results of Data Analyses

Treatment

The independent variable of treatment was established at 3 levels to investigate the effect of adjudicators' racial perception on choral performance attributed either to a homogeneous Black, homogeneous White or heterogeneous Black and White choral group. ANOVA results revealed a significant main effect for treatment ($F[2, 20] = 5.62; p = .01$) on adjudicators' choral performance evaluation ratings. Therefore, the first null hypothesis was rejected. This result was consistent with findings in previous studies (Elliott, 1995; Killian, 1990; McCrary, 1990) indicating that differences in music performance evaluation ratings are influenced by non-music factors associated with performers' external characteristics, including race.

The source of the observed significance was between the choral evaluation mean score ratings of Treatment Group A and Treatment Group B. The mean score of 6.20 points for Treatment Group A was 1.19 points higher than was the mean score of 5.01 points observed for Treatment Group B.

The choral evaluation form used in the current study incorporated a seven-point semantic differential scale; however, the practical implications of the revealed main effect of treatment in the current study may be clarified by converting the seven-point scale to a five-point scale typically used for evaluation during adjudicated choral festival events. When such a conversion is conducted, a scale is produced wherein a rating range of 1 to 1.3 points corresponds to the descriptor "Needs Improvement;" a rating range of 1.3 to 2.7 points corresponds to the descriptor "Fair;" a rating range of 2.8 to 4.1 points corresponds to the descriptor "Good;" a rating range of 4.2 to 5.5 points corresponds to the descriptor "Excellent;" and a rating range of 5.6 to 7 points corresponds to the descriptor "Superior." The range within each ratings category is 1.3 points.

Interpretation of the mean scores based upon the converted scale reveals a "Superior" rating for the homogeneous Black choral group evaluated in Treatment Group A; a rating of "Excellent" for the homogeneous White choral group evaluated in Treatment Group B.

One explanation for the differences observed between evaluations for treatment groups A and B may be Black and White adjudicators' preconceptions regarding the choral performance abilities of and associated performance expectations for racially homogeneous and racially heterogeneous groups. McCrary (1990) indicated that factors such as vocal performance techniques associated with cultural traditions, stylistic interpretations, and subtle distinctions in vocal timbre contribute to a listeners' ability to identify a performers' racial

identity as Black or White. The adjudicators in Treatment Group A may have anticipated hearing vocal qualities in the performance of the choral group they perceived to be Black that are inconsistent with prevailing standards for choral performance. Consequently, the Black and White adjudicators in Treatment group A may have been motivated to respond to the music stimulus with higher score ratings because the vocal qualities were different than expected.

Following one of the administrations of the experimental procedure, a Black female subject with more than 15 years experience as a high school choral music educator related how surprised and impressed she was to hear a Black high school choral group provide a choral performance at the competency level demonstrated in the recording (listening stimulus). Perhaps, the opinion expressed to the researcher by this subject was an opinion also held by other subjects.

Similarly, the lowest observed choral performance evaluation rating mean score was for the performance attributed to the White choral group (Treatment Group B). This rating may have been a reflection of the adjudicators' unfulfilled choral performance expectations for a group whose vocal qualities and performance abilities were anticipated to conform to prevailing standards. For both Treatment A and Treatment B, adjudicators' choral performance evaluation ratings may have been influenced by the extent to which the listening stimulus corresponded to their preconceptions about the choral performance abilities of the White and Black groups. Additionally, Treatment Group B was observed to

have a higher number of subjects who were retired high school choral music educators than did Treatment Group B, and evaluations might have been based upon a higher expectations derived from years of experience as a choral music educator.

Race

No significant main effect of adjudicators' self-reported racial identification on their ratings of choral performances was found ($F[1, 20] = .47; p = .50$). Based upon this result, the second null hypothesis was retained.

Regardless of treatment groups, mean choral evaluation scores for the White subjects were consistently higher than were those observed for the Black subjects. Although there was a .34-point differential in the mean scores of Black and White subjects in Treatment Group A, the mean score difference of .12 points for Black and White subjects in Treatment Group B and the .15-point differential between mean scores for Black and White subjects in the control group were comparatively smaller and more similar to each other than to the mean score for Treatment Group A.

Treatment and Race

No significant interaction effect was found ($F[2, 20] = .05; p = .95$) for adjudicators' self-reported racial identification and adjudicators' racial perception, on their ratings of choral performance. Therefore, the third null hypothesis was retained.

McCrary (1990) observed that black subjects' preferred music by black performers, and that white subjects preferred music by both black and white performers. If McCrary's findings regarding same-race and different-race preferences had been borne out in this study, scores of White and Black subjects might have differed, depending on the treatment group; thus demonstrating an interaction between treatment group and race, and perhaps indicating a similar preference among adult evaluators that was observed for adolescents in McCrary's study. Nevertheless, given that any observed interaction effect would have indicated a failure to control for the interaction of the independent variables of race and treatment, the factors of interest in the current investigation, a finding of no interaction effect was a positive outcome.

Research Question

The results of analyses examining the magnitude of relationship between subjects' choral performance ratings and their ethnic social encounter preferences as measured by subscales of McCrary's (1990) *Racial-Encounter Measure* revealed negative correlations that were low to moderate for Black and White subjects across the treatment groups, with the exception of a high, negative correlation found for Black subjects ($r = -.95$, $p = .20$) in Control Group C.

Several considerations may be given for the low to moderate, negative correlation coefficients obtained in the current study. Originally, McCrary's (1990) *Racial-Encounter Measure* was constructed to measure Black and White

adolescents' expressed preferences for social encounters with other Black and White persons and groups. Several items in the measure described racial encounters occurring in settings such as a shopping mall or a public transit bus. Subjects in the current study may not have considered the social situations described in these items to be realistic or specifically applicable to them. Consequently, the subjects' responses may have been influenced by their having to assign personal meaning to a social scenario they believed to be unrealistic or irrelevant, resulting in correlation coefficients that were negative and low or moderate.

Another consideration is related to the negative correlations observed for the choral performance evaluation mean scores and the relevant Racial-Encounter Measure subscale mean scores for Black and White subjects within each treatment group. The negative correlations obtained may be explained by the parameters of the current study. Prior to completing the *Racial-Encounter Measure*, subjects were aware that they had previously evaluated a choral performance attributed to a Black, White, or Black and White choral group. Although the Racial-Encounter Measure included distracters, the number of distracters was limited and subjects may have recognized that an additional aspect of the current study involved examining their response to items related to racial encounters in different scenarios. Therefore, to prevent any indicators of racial bias or racial preferences in their responses, subjects may have checked the midpoint of the response continuum corresponding to a neutral response.

The tendency for subjects to select neutral responses in measures designed to examine racially sensitive issues has been observed in studies conducted to examine motivations to respond in a manner that does not appear to be racially biased. Researchers have indicated that when people are intrinsically motivated to make a personal and conscious decision to respond without bias or with low levels of bias on one measure, they are more effective in responding without the appearance of bias on another measure (Devine, P., Plant, E., Amodio, D., Harmon-Jones, E., & Vance, S., 2002). In the context of the current study, this behavior suggests that subjects made a conscious decision to provide neutral responses on the *Racial-Encounter Measure*; however, efforts to respond without bias on the choral performance evaluation were more difficult for subjects to control and resulted in negative correlation coefficients being obtained for the correlations between the mean scores from the choral performance evaluation mean and the relevant *Racial-Encounter Measure* subscale.

Other Research Considerations

Several issues regarding aspects of the current study bear consideration. The initial survey that was sent to potential subjects for the study did not receive the degree of response the researcher had anticipated. Based upon the lack of responses, follow-up electronic mail communications were initiated. As a result of time constraints, employing other means for communicating with potential subjects was not feasible; however, using telephone communication or sending

reminder letters by means of land mail to conduct follow-up contacts with non-respondents might have increased the number of participants.

Selection of the choral performance listening stimulus required validating to confirm that the perceived choral sound corresponded with the expected sound for the 19-member group depicted in the choral photographs. The listening stimulus that was validated using the established procedure was performed by a group larger in size than the group depicted in the photographs, requiring an alternate listening stimulus to be used. Selecting listening examples by choral groups approximate in size to the photographed groups might have eliminated the need for sound modification.

The original plan to use a Black and White volunteer to facilitate the execution of the treatment procedures was based upon a review of research studies in the social sciences indicating that subjects' providing direct feedback to a researcher perceived as having a different racial identity than the subjects' self-identified racial identity tended to provide responses that would not be perceived as biased. Therefore, efforts to use research facilitators whom subjects might perceive as being of their same racial background was viewed an important control measure, and a Black and White facilitator were recruited to assist with the treatment procedure. Unfortunately, one week prior to the first scheduled administration of the experimental procedure, the White volunteer was unable to serve as a research facilitator. Attempts to recruit another White facilitator were unsuccessful. Therefore, to control for consistency in the

administration of the experimental procedure, the Black facilitator was released from her commitment, and the researcher became facilitator of the experimental treatment. The extent to which this change may have affected the outcome of the study is unknown; however, the implication of this finding in sociological studies deserves additional consideration by music educators examining topics in music that involve considerations of race and ethnicity.

Four subjects failed to complete the final phase of the study which involved responding to the *Racial-Encounter Measure* and reviewing the debriefing statement. Although the researcher is not certain as to the reasons for the failure of these four participants to complete the study, one possibility is that one or more subjects who had completed the final phase of the study may have communicated aspects of the final phase and true nature of the study. This information may have decreased subjects' desire to complete the remaining phase of the study. Devising an alternative means of providing simultaneous debriefing of subjects might have increased the likelihood that all subjects would have completed all aspects of the study.

Conclusions and Recommendations

Conclusions

The following conclusions were drawn from results of the current study:

1. Adjudicators' racial perceptions, which may include components such as performance expectations, physical characteristics, and adjudicators' personal beliefs, may influence the evaluation ratings of choral performances.

2. In the current study, adjudicators' race did not significantly affect choral performance evaluations; however across race, White subjects' choral evaluation performance mean scores were higher than were those of Black subjects, and further investigations may be warranted.
3. Negative relationships were observed between subjects' choral performance evaluation mean scores and their preferences for encounters with persons of the same or of a different race in Treatment Groups A and B. Moderate relationships between these variables were observed for the control group. The observed results may be related to factors known to affect subjects' response to measures designed to examine racial attitudes.

Recommendations for Future Research

Although numerous studies have been conducted to investigate factors influencing the evaluation of instrumental and vocal solo music performances, research examining the influence of external physical characteristics, such as race, upon the evaluation of choral music performance is limited. Further investigations are needed to determine the extent to which race and racial perception influence choral performance evaluation ratings.

Given that the evaluation of choral music performance is an important component of choral instruction, many choral music educators place considerable value upon choral music performance evaluation ratings obtained at adjudicated choral events; however, some choral music educators do not place much credence in adjudicated choral events and avoid participating because of concerns that factors unrelated to the musical aspects of the performance, unduly influence choral performance evaluation ratings. Considering the educational benefits associated with objective measures of evaluation, the

current study sought to clarify whether race and racial perception were indeed factors influencing the evaluation of choral performances.

Replication of the current study should include a larger, randomized sample of choral music adjudicators. Additional studies examining components of the choral performance evaluation forms used by local, state, and national music organizations may provide information to develop objective evaluation scoring systems. Finally, future studies should investigate choral performance evaluation ratings of racial and ethnic groups beyond those used in the current study, using audio and audiovisual evaluation conditions.

There is a need for continued investigation regarding non-musical factors that may influence music performance evaluations. Future research may contribute to the development of objective choral performance evaluation measures through methods designed to control non-music influences. This may contribute to the improvement of classroom assessments in choral music education, and may result in the enhancement of the educational value of choral performance experiences for students and teachers.

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APPENDIX A

*THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO
CONSENT TO ACT AS A HUMAN PARTICIPANT FORM
(WITH DECEPTION)*

THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO**CONSENT TO ACT AS A HUMAN PARTICIPANT**

Project Title: Factors Affecting Evaluation Ratings of Choral Group Performance

Project Director: Jimmy A. Cheek, II

Participant's Name: _____

Purpose, Participant Selection and Procedures

The purpose of this study is to investigate factors that may influence your evaluation ratings for an audio-only recorded choral performance. You were selected based upon the responses you provided on the online survey, which was designed to determine demographic information of the population pertinent to this study.

You will be provided portfolio materials and evaluate an audio-only recorded choral performance using a modified California Bay Section Music Educators Association choral evaluation rating form. You will be asked to complete a posttreatment online survey within five days following the choral performance evaluation.

Benefits

There are no direct benefits to the participants in this study. The study may benefit society by providing a research basis for identifying and clarifying factors that may influence choral evaluation ratings.

Risks of Participation

There is minimal risk associated with participation in this study.

Opportunity to Question or Withdraw Participation

You are free to ask questions to make sure that you understand any risks and benefits involved with this research. Your participation is entirely voluntary and

you may refuse to participate or withdraw your consent to participate in this research at any time without penalty or prejudice.

TIME REQUIREMENT AND CONFIDENTIALITY

You were selected to participate in this study based on your responses to a five-minute pretreatment survey that provided demographic information used to identify the population pertinent to this study. Completion of the pretreatment survey signified your informed consent and willingness to participate in the experimental treatment and posttreatment components of the study. In addition to the amount of travel time required for you to arrive at this public library facility to participate in the experimental treatment; this phase of the study will include distribution of portfolio materials, review of the Consent-to-Act-as-a-Human-Participant form as required by the University of North Carolina at Greensboro Office of Research Compliance, reviewing instructions for completing the experimental treatment, administration of the experimental measure, and answering any questions you may have regarding this study will take 25 minutes.

Following the experimental treatment, you will be asked to complete an online post-treatment survey within five days. Completion of this survey will take 20 minutes. In addition to your travel time, the time required to complete all phases of this study is 50 minutes.

Your participation in this study is completely confidential and your identity will not be disclosed. You will be assigned a numeric code. All data will be de-identified and participants will be identified only by numeric code during the experimental treatment and posttreatment components of this study. Participants will not be identified by name during any reporting or in any publications. Research data will be scanned and secured on a password-protected portable USB computer storage device, which will be stored in a locked safe box in the home office of the principal investigator for a period of five years, after which, the data will be disposed of by deleting all files on the USB storage device. Paper copies will be shredded.

CONSENT TO ACT AS A HUMAN PARTICIPANT

You have been provided with a written description of the purpose and procedures involved in this research project by Jimmy A. Cheek, II. Any benefits and risks

were also described. Jimmy A. Cheek, II has answered all of your current questions regarding your participation in this project. You are free to refuse to participate or to withdraw your consent to participate in this research at any time without penalty or prejudice; your participation is entirely voluntary. Your privacy will be protected because you will not be identified by name as a participant in this project.

The University of North Carolina at Greensboro Institutional Review Board, which insures that research involving human subjects follows federal regulations, has approved the research and this consent form. If you have questions regarding your rights as a participant in this project, you may call Mr. Eric Allen, Research Compliance Officer at (336) 256-1482. If you have questions regarding aspects of the research study you may call Jimmy A. Cheek, II at 336-254-3033. Any new information that develops during the project will be provided to you if the information might affect your willingness to continue participation in the project.

You have been provided two (2) copies of this consent form. By signing this form, you are agreeing to participate in the project as described in the information provided by Jimmy A. Cheek, II. Please keep the other copy of this form for your records.

Participant's Signature

Date

APPENDIX B

TREATMENT GROUP PHOTOGRAPHS

TREATMENT GROUP PHOTOGRAPHS



Experimental Group A = Racially Homogeneous (Black)



Treatment Group B = Racially Homogeneous (White)



Control Group C = Racially Heterogeneous (Black and White)

APPENDIX C

CHORAL GROUP PHOTOGRAPH SURVEY

Choral Group Photograph Survey

Directions: Place an X in the box to specify the race of the group depicted in the photograph.

Group A

<input type="checkbox"/>	Black only
<input type="checkbox"/>	Black and White
<input type="checkbox"/>	White only
<input type="checkbox"/>	Other

Group B

<input type="checkbox"/>	Black only
<input type="checkbox"/>	Black and White
<input type="checkbox"/>	White only
<input type="checkbox"/>	Other

Group C

<input type="checkbox"/>	Black only
<input type="checkbox"/>	Black and White
<input type="checkbox"/>	White only
<input type="checkbox"/>	Other

APPENDIX D

VOCAL ADJUDICATION FORM

VOCAL ADJUDICATION FORM

Selection Title: _____

REVISED CALIFORNIA MUSIC EDUCATORS ASSOCIATION BAY SECTION

Modified for research purposes: October 2006 by Jimmy Cheek, II

University of North Carolina at Greensboro

School of Music

Directions: For each of the following areas, circle the one number that best indicates your evaluation of the relevant aspect of the audio-only recorded choral performance.

QUALITY OF SOUND

RATINGS

Intonation	Low [1] [2] [3] [4] [5] [6] [7] High
Vowel uniformity	Low [1] [2] [3] [4] [5] [6] [7] High
Blend	Low [1] [2] [3] [4] [5] [6] [7] High
Balance	Low [1] [2] [3] [4] [5] [6] [7] High
Tone quality	Low [1] [2] [3] [4] [5] [6] [7] High

MUSICALITY

Interpretation	Low [1] [2] [3] [4] [5] [6] [7] High
Style	Low [1] [2] [3] [4] [5] [6] [7] High
Phrasing	Low [1] [2] [3] [4] [5] [6] [7] High
Expression	Low [1] [2] [3] [4] [5] [6] [7] High
Sensitivity	Low [1] [2] [3] [4] [5] [6] [7] High
Dynamics	Low [1] [2] [3] [4] [5] [6] [7] High

TECHNIQUE

Rhythm	Low [1] [2] [3] [4] [5] [6] [7] High
Diction	Low [1] [2] [3] [4] [5] [6] [7] High
Articulation	Low [1] [2] [3] [4] [5] [6] [7] High
Precision	Low [1] [2] [3] [4] [5] [6] [7] High

APPENDIX E

RACIAL-ENCOUNTER MEASURE

SOCIPREF
McCrary (1990)

SUBJECT ID _____

ETHID _____

Directions: For each of the following statements, tell us what you would do. There are no wrong answers. With an X, mark the space (above the number) somewhere between I WOULD and I WOULD NOT to show what you would do. If you can't decide, mark your X in the middle space. Be sure to mark only one X for each question.

1. If I needed to know what time it was, and there was a younger woman and an older woman waiting at the bus stop, I would ask the younger woman.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

2. I would feel comfortable going to the mall with a group of Black/African American friends.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

3. If on the bus to the mall there were only two seats available, one next to a Black/African American woman and one next to a White/Caucasian woman, I would sit next to the White/Caucasian woman.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

4. If I needed to transfer to another bus and the only seat available was one next to a Black/African American man, I'd just stand.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

5. If I were buying a gift for a friend, I would trust an older man to help me.

I WOULD NOT [] [] [] [] [] [] [] I WOULD

1 2 3 4 5 6 7

6. I would feel more comfortable going to the mall with a group of White/Caucasian friends.

I WOULD NOT [] [] [] [] [] [] [] I WOULD

1 2 3 4 5 6 7

7. If my Black/African American friend was sick and could not go to the mall, but my White/Caucasian friend could, I'd just go by myself.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

8. If I were buying new shoes at the mall and two men, an older salesman and a younger salesman were available to help, I'd ask the older man for help.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

9. If I saw some White/Caucasian friends in the mall and they invited me to have lunch with them, I'd make up an excuse and not go.

I WOULD NOT [] [] [] [] [] [] [] I WOULD

1 2 3 4 5 6 7

10. If I saw a Black/African American friend with her White/Caucasian boyfriend at the mall, I would pretend that I did not see them.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

11. If I lost my wallet while shopping at the mall, I would trust a Black/African American security guard to help me.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

12. If I were buying new shoes at the mall and two women, a Black/African American and White/Caucasian salesperson, were available to help, I'd ask the Black/African American woman for help.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

13. If I and a group of my White/Caucasian were getting together to go to the mall, I would feel comfortable asking some of my Black/African American friends to come along, too.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

14. If I saw a White/Caucasian friend with her Black/African American boyfriend at the mall, I would pretend that I did not see them.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

15. If I lost my wallet while shopping at the mall, I would trust a White/Caucasian security guard to help me.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

16. If I were buying new shoes at the mall and two women, a Black/African American and White/Caucasian salesperson, were available to help me, I'd ask the White/Caucasian woman for help.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

17. If I were buying a gift for a friend and two women, an older woman and a younger woman were available to help me, I would ask the younger woman.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

18. If I saw some Black/African American friends in the mall and they invited me to have lunch with them, I'd make up an excuse and not go.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

19. If I and a group of my Black/African American friends were getting together to go to the mall, I would feel comfortable asking some of my White/Caucasian friends to come along, too.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

20. If my White/Caucasian friend was sick and could not go to the mall, but my Black/African American friend could, I'd just go by myself.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

21. If on the bus to the mall there were only two seats available, one next to a Black/African American woman and one next to a White/Caucasian woman, I would sit next to the Black/African American woman.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

22. If I needed to transfer to another bus and the only seat available was one next to a White/Caucasian man, I'd just stand.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

23. If I needed to know what time it was, and there was a younger man and an older man waiting at the bus stop, I would ask the younger man.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

24. If on the bus, there were only two seats available, one next to an older woman and one next to a younger woman, I would sit next to the older woman.

I WOULD NOT [] [] [] [] [] [] [] I WOULD
1 2 3 4 5 6 7

APPENDIX F

PHOTOGRAPHS OF TEST ADMINISTRATION STATIONS

TEST ADMINISTRATION STATION

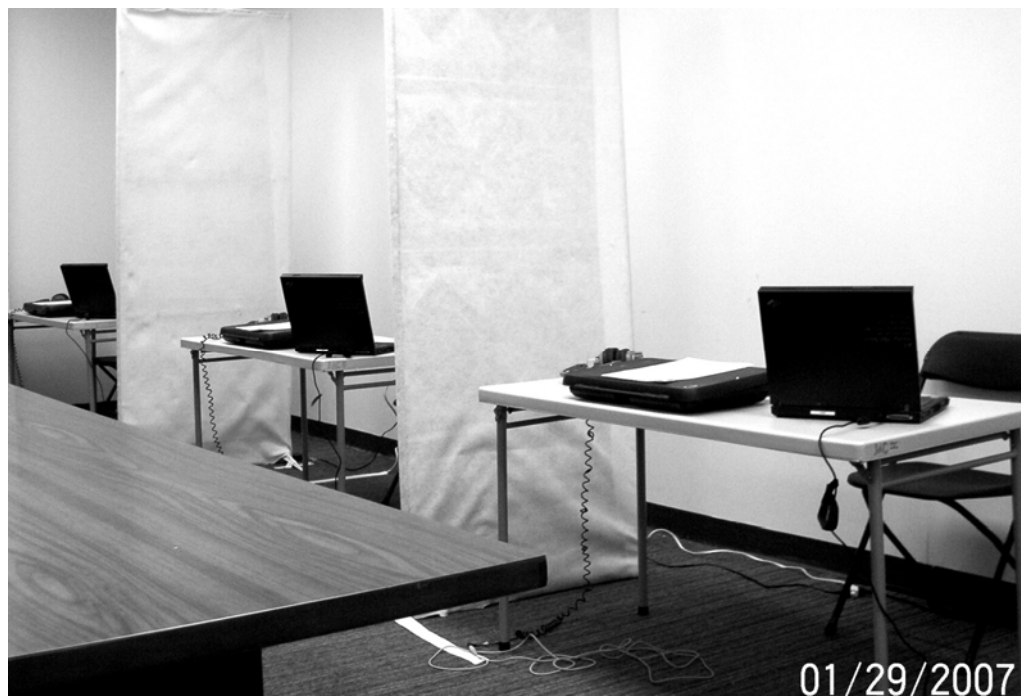


Close view of test administration station at the Greensboro Public Library
Greensboro, North Carolina (01/31/2007)



Test administration station at the McGirt Horton Library in Greensboro, NC.

TEST ADMINISTRATION STATIONS



Example of set-up in conference room at the Forsyth County Public Library
Winston-Salem, North Carolina (01/29/2007)



Example of set-up in at Mars Hill College, Mars Hill, NC

APPENDIX G

DEBRIEFING STATEMENT

DEBRIEFING SCREEN

Thank you for completing the online questionnaire and participating in this research study. Please read the following debriefing statement, as it provides details of the purpose of the study, experimental treatment, and the importance of this study in clarifying factors that may influence the evaluation ratings of choral group performance. Should you have any questions regarding this study, contact information is included.

Debriefing Statement

Project Title: The Effect of Race and Racial Perception on Adjudicators' Ratings of Choral Performances Attributed to Racially Homogeneous and Racially Heterogeneous Groups. Jimmy Cheek, II (2007).

Activities, Purpose and Hypotheses

During this research study, you were asked to complete an online demographic survey and evaluate an audio-recorded choral performance using a choral evaluation rating form after reviewing a portfolio containing background information and a picture depicting the choral group you would be evaluating. In addition, you were asked to complete a posttreatment online survey within five days following the choral performance evaluation.

The purpose of this research was designed to investigate whether adjudicators' racial perception affects their ratings of choral music performances attributed to choral groups perceived to be racially homogeneous (Black or White) and racially heterogeneous (Black and White). Researchers in music and other academic areas have examined the influence of external factors related to race, ethnic social encounter preferences, gender, and physical attractiveness on performance expectation and evaluation outcomes. Significant findings have been related to the influence of external factors on reliability of music performance evaluations based on adjudicators' expectation, music preferences, the evaluation process, and patterns in adjudicators' ratings of music performance (Bermingham, 2000; Elliott, 1995; McCrary, 1993).

I hypothesized that adjudicators' race and racial perception would have no significant effect on their ratings of choral performances attributed to racially homogeneous and racially heterogeneous groups. It is anticipated that the

results of this research will contribute to the research literature relating to factors influencing fair and equitable music performance adjudication practices.

During the experimental treatment portion of this study, you were led to believe that the group depicted in the photograph included in the portfolio you received provided the choral performance listening stimuli that you evaluated. In reality, however, the group depicted in the picture was not the source of the evaluated choral performance listening stimuli and the information presented to you regarding the choral groups' background information was hypothetical. The posttreatment measure omitted descriptive information related to examining racial social encounter preferences. If you desire to learn more about the racial social encounter measure, please see McCrary (1990).

This deception was necessary to investigate the extent to which external non-music factors related to race and racial perception may affect the evaluation of choral music performance. All data collected will be de-identified. Participants will be identified only by numeric codes, not by name.

Your participation was important in helping to clarify whether factors associated with race and attitudes about race influence choral performance adjudication ratings.

Contact Information

If you have any questions regarding this study, please contact Jimmy Cheek via email at jacheek@uncg.edu or jcheek10@triad.rr.com or call (336) 254-3033. You may also contact Dr. Constance L. McKoy (clmckoy@uncg.edu or 336-334-5478).

Additionally, The University of North Carolina at Greensboro Institutional Review Board, which insures that research involving human subjects follows federal regulations, has approved the current research study and this debriefing form. You may contact Mr. Eric Allen, Research Compliance Officer at (336) 256-1482 if you have questions regarding your rights as a participant in this project.

References

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